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Part III

Environmental Protection Agency

40 CFR Parts 122, 123, 124 and 504
National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 122, 123, 124 and 504

[FRL 3376-8]

National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Section 405 of the Water Quality Act of 1987 (WQA) added Section 402(p) of the Clean Water Act (CWA) to require the Environmental Protection Agency (EPA) to establish regulations setting forth National Pollutant Discharge Elimination System (NPDES) permit application requirements for: storm water discharges associated with industrial activity; discharges from a municipal separate storm sewer system serving a population of 250,000 or more; and discharges from a municipal separate storm sewer system serving a population of 100,000 or more, but less than 250,000. Today's notice requests comments on proposed permit application requirements for these discharges and for storm water discharges which are designated on a case-by-case basis for a permit for which the Administrator, or State, as the case may be, determines contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.

Section 401 of the WQA amended Section 402(1)(2) to provide that NPDES permits shall not be required for discharges of storm water runoff from mining operations or oil and gas exploration, production, processing, or treatment operations or transmission facilities, which are not contaminated by contact with, or do not come into contact with, any overburden, raw material, intermediate product, finished product, byproduct, or waste product located on the site of such operations. Today's notice requests comments on regulations proposed to clarify and implement this provision.

DATES: Comments on this proposed rule must be received on or before March 7, 1989.

Public meetings are scheduled as follows:

(1) January 13, 1989, 9:00 a.m. to 12:00 p.m. to discuss permit application and notification requirements for storm water discharges associated with industrial activity and 1:00 p.m. to 4:00 p.m. to discuss requirements for municipal separate storm sewer systems, in Washington, DC.

(2) January 24, 1989, 9:00 a.m. to 12:00 p.m. to discuss permit application and notification requirements for storm water discharges associated with industrial activity and 1:00 p.m. to 4:00 p.m. to discuss requirements for municipal separate storm sewer systems, in Chicago, IL.

(3) January 26, 1989, 9:00 a.m. to 12:00 p.m. to discuss permit application and notification requirements for storm water discharges associated with industrial activity and 1:00 p.m. to 4:00 p.m. to discuss requirements for municipal separate storm sewer systems, in Dallas, TX.

(4) January 31, 1989, 9:00 a.m. to 12:00 p.m. to discuss permit application and notification requirements for storm water discharges associated with industrial activity and 1:00 p.m. to 4:00 p.m. to discuss requirements for municipal separate storm sewer systems, in Oakland, CA.

(5) February 7, 1989, 9:00 a.m. to 12:00 p.m. to discuss permit application and notification requirements for storm water discharges associated with industrial activity and 1:00 p.m. to 4:00 p.m. to discuss requirements for municipal separate storm sewer systems, in Jacksonville, FL.

(6) February 9, 1989, 9:00 a.m. to 12:00 p.m. to discuss permit application and notification requirements for storm water discharges associated with industrial activity and 1:00 p.m. to 4:00 p.m. to discuss requirements for municipal separate storm sewer systems, in Boston, MA.

The morning and afternoon sessions may be adjourned earlier if there are no remaining comments.

Persons wishing to make oral presentations must restrict them to 15 minutes and are encouraged to have written copies of their complete comments for inclusion in the official record.

ADDRESSES: The public should send an original and two copies of their comments to Tom Seaton, Permits Division (EN-336), Environmental Protection Agency, 401 M Street SW., Washington, DC 20460. The public record is located at EPA Headquarters, NE-208, and is available for viewing from 9:30 a.m. to 4:00 p.m., Monday through Friday, excluding Federal holidays. Appointments may be made by calling Yvonne Marshall at (202)-475-7460. Copies cost $.15/page.

Public meetings will be held at the following addresses:

(1) Washington—Auditorium of the EPA Education Center at U.S. Environmental Protection Agency Headquarters, 401 M St. SW; Washington, DC 20460.

(2) Chicago—Lakeview Conference Room, Southeast Corner, 16th Floor, U.S. Environmental Protection Agency Region V, 230 South Dearborn St., Chicago, IL 60604.

(3) Dallas—Arkansas Room, 12th Floor, U.S. Environmental Protection Agency Region VI, 1445 Ross Ave., Dallas TX 75270.

(4) Oakland—Hyatt at Oakland International, 455 Hegenberger Rd., Oakland, CA 94621.

(5) Jacksonville—Jacksonville Hilton, 14000 Dixie Clipper Drive, Jacksonville Airport, Jacksonville, FL 32218.

(6) Boston—John F. Kennedy Federal Building, Room 2003, U.S. Environmental Protection Agency Region I, Boston, MA 02203.

FOR FURTHER INFORMATION CONTACT: For further information on the proposed rule contact: James Gallup, Kevin Weiss, or Tom Seaton, Office of Water Enforcement and Permits (EN-336), United States Environmental Protection Agency, 401 M Street SW., Washington, DC 20460, (202)-475-9518.

SUPPLEMENTARY INFORMATION:

I. Background
- A. Water Quality Concerns
- B. Previous Regulatory Approaches

II. March 7, 1985 Proposed Rule
- A. Discussion
- B. Reaction to Comments

III. August 12, 1985 Reopener Notice
- A. Group Application Option, Process and Procedures
- B. Classification of Publicly-Owned Separate Storm Sewers
- C. Discharges into Publicly-Owned Separate Storm Sewers

IV. Water Quality Act of 1987

V. Remand of 1984 Regulations

VI. Codification Rule

VII. Today's Notice
- A. Overview
- B. Definition of Storm Water
- C. Responsibility for Storm Water Discharges Associated with Industrial Activity into Municipal Separate Storm Sewers
  1. Prior Approaches
  2. Today's Proposal Regarding Storm Water Discharges Associated with Industrial Activity Into Large and Medium Municipal Separate Storm Sewer Systems
  3. Today's Proposal Regarding Storm Water Discharges Associated with Industrial Activity from Federal Facilities into Large and Medium Municipal Separate Storm Sewer Systems
  4. Today's Proposal Regarding Storm Water Discharges Associated with Industrial Activity into Municipal

Separate Storm Sewer Systems Serving a Population of Less than 100,000
D. Storm Water Discharge Sampling
E. Storm Water Discharges Associated with Industrial Activity
1. Permit Applicability
a. Storm Water Discharges to Municipal Storm Sewers
b. Storm Water Discharges to Non-Municipal Conveyances
2. Scope of "Associated with Industrial Activity"
3. Individual Application Requirements
4. Group Applications
a. Facilities Covered
b. Scope of Group Applications
c. Group Application Requirements
5. Group Application: Applicabilty in NPDES States
6. Group Application: Procedural Concerns
7. Permit Applicability and Applications for Oil, Gas and Mining Operations
a. Gas and Oil Operations
b. Use of Reportable Quantities to Determine if a Storm Water Discharge from an Oil or Gas Operation is Contaminated
c. Mining Operations
8. Application Requirements for Construction Activities
9. Application Requirements for New Sources and New Discharges
F. Municipal Separate Storm Sewer Systems
1. Municipal Separate Storm Sewers
2. Effective Prohibition on Non-Storm Water Discharges
3. Site-Specific Storm Water Quality Management Programs for Municipal Systems
4. Large and Medium Municipal Storm Sewer Systems
a. Georgraphic Basis for Developing Storm Water Quality Management Programs for Developed Areas
b. Municipal Governments
c. Options Considered
5. System-Wide Permit Applications
6. Co-Permittees to System-Wide Permits
G. Permit Application Requirements for Large and Medium Municipal Systems
1. Strategy for Implementing the Permit Program
2. Structure of Permit Application
a. Part 1 Application
b. Part 2 Application
3. Major Outfalls
4. Viable Program
5. Source Identification
6. Characterization of Discharges
a. Screening Analysis for Illicit Discharges
b. Representative Data
c. Loading and Concentration Estimates
7. Proposed Storm Water Quality Management Programs
a. Measures to Reduce Pollutants in Runoff from Commercial and Residential Areas
b. Measures for Illicit Discharges and Improper Disposal
c. Measures to Reduce Pollutants in Storm Water Discharges Associated with Industrial Activity Into Municipal Systems
d. Measures to Reduce Pollutants in Runoff from Construction Sites Into Municipal Systems
8. Assessment of Controls
H. Annual Reports
I. Application Deadlines
J. State Storm Water Management Programs
VIII. Economic Impact
IX. Executive Order 12291
X. Paperwork Reduction Act
XI. Regulatory Flexibility Act

SUPPLEMENTARY INFORMATION:

I. Background

A. Water Quality Concerns

The 1972 amendments to the Federal Water Pollution Control Act (referred to as the Clean Water Act or CWA), prohibit the discharge of any pollutant to navigable waters from a point source unless the discharge is authorized by a NPDES permit. Efforts to improve water quality under the NPDES program have traditionally focused primarily on reducing pollutants in discharges of industrial process wastewater and municipal sewage. This program emphasis has developed for a number of reasons. At the onset of the program in 1972, many sources of industrial process wastewater and municipal sewage were not adequately controlled, and represented pressing environmental problems. In addition, sewage outfalls and industrial process discharges were easily identified as responsible for poor, often drastically degraded water quality conditions. However, as pollution control measures were initially developed for these discharges, it became evident that more diffuse sources (occurring over a wide area) of water pollution, such as agricultural and urban runoff were also major causes of water quality problems. Some diffuse sources of water pollution, such as agricultural storm water discharges and irrigation return flows, are statutorily exempted from the NPDES program. Controls for other diffuse sources have been slow to develop under the NODES program.

Since enactment of the 1972 amendments to the CWA, considering the rise of economic activity and population, significant progress in cleaning up water pollution has been made, particularly with regard to industrial process wastewater and municipal sewage. Expenditures by EPA, the States, and local governments to construct and upgrade sewage treatment facilities have substantially increased the population serviced by higher levels of treatment. Permitting backlogs for industrial process wastewater discharges have been reduced. Continuing improvements are expected for these discharges as the NPDES program continues to shift to toxic and water quality-based pollution control.

Although assessments of water quality are extremely difficult to perform and verify, several National assessments of water quality are available. For the purpose of these assessments, urban runoff is considered to be a diffuse source or nonpoint source pollution, although legally, most urban runoff is discharged through conveyances such as separate storm sewers or other conveyances which are point sources under the CWA, and are subject to the NPDES program. The "National Water Quality Inventory, 1986 Report to Congress" provides a general assessment of water quality based on biennial reports submitted by the States under Section 305(b) of the CWA. In preparing the Section 305(b) Reports, the States were asked to indicate the fraction of the States' waters that were fully supporting, partly supporting, or not supporting designated uses. The Report indicates that of the rivers, lakes, and estuaries that were assessed by States (approximately one-fifth of stream miles, one-third of lake acres and one-half of esturine waters), roughly 75% are supporting the uses for which they are designated. For waters with use impairments, States were asked to determine impacts due to nonpoint (agricultural and urban runoff and other sources), municipal sewage, industrial (process wastewaters), combined sewer overflows, natural, and other sources, then combine impacts to arrive at estimates of the relative percentage of State waters affected by each source. In this manner, the relative importance of the various sources of pollution causing use impairments was assessed and weighted national averages were calculated. Based on 37 States that provided information of sources of pollution, industrial process wastewaters were cited as the cause of nonsupport for 9% for rivers and streams, 1% lakes, and 8% for estuaries. Municipal sewage was the cause of nonsupport for 17% of rivers and streams, 8% lakes, and 22% estuaries. Nonpoint sources was the cause of nonsupport for 65% of rivers and streams, 76% lakes and 45% estuaries. The Assessment concluded that pollution from diffuse sources such as runoff from agricultural and urban areas is cited by the States as the leading cause of water quality impairment. These sources appear to be increasingly important contributors of use impairment as discharges of industrial process wastewaters and municipal sewage plants come increasingly under

control and intensified data collection efforts provide additional information.

The States conducted a more comprehensive study of diffuse pollution sources under the sponsorship of the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) and EPA. The study resulted in the report "America's Clean Water—The States' Nonpoint Source Assessment, 1985" which indicated that 38 States reported urban runoff as a major cause of beneficial use impairment. In addition, 21 States reported construction site runoff as a major cause of use impairment.

To provide a better understanding of the nature of urban runoff from commercial and residential areas, from 1978 through 1983, EPA provided funding and guidance to the Nationwide Urban Runoff Program (NURP). The NURP program included 28 projects across the Nation, conducted separately at the local level but centrally reviewed, coordinated, and guided.

One focus of the NURP program was to characterize the water quality of discharges from separate storm sewers which drain residential, commercial, and light industrial (industrial parks) sites. The majority of samples collected in the study were analyzed for eight conventional pollutants and three metals. Data collected in NURP indicated that on an annual loading basis, suspended solids in discharges from separate storm sewers draining runoff from residential, commercial and light industrial areas are around an order of magnitude or more greater than effluent from sewage treatment plants receiving secondary treatment. In addition, the study indicated that annual loadings of chemical oxygen demand (COD) is comparable in magnitude to effluent from sewage treatment plants receiving secondary treatment. When analyzing annual loadings associated with urban runoff, it is important to recognize that discharges of urban runoff are highly intermittent, and that the short-term loadings associated with individual events will be high and may have shockloading effects on receiving water such as sag in dissolved oxygen levels. NURP data also showed that fecal coliform counts in urban runoff are typically in the tens to hundreds of thousand per 100 ml of runoff during warm weather conditions, although the study suggested that fecal coliform may not be the most appropriate indicator organism for identifying potential health risks in storm water runoff. Although NURP did not evaluate oil and grease, other studies have demonstrated that urban runoff is an extremely important source of oil pollution to receiving waters, with hydrocarbon levels in urban runoff typically being reported at a range of 2 to 10 mg/1. These hydrocarbons tend to accumulate in bottom sediments where they may persist for long periods of time, and exert adverse impacts on benthic organisms.

A portion of the NURP program involved monitoring 120 priority pollutants in storm water discharges from lands used for residential, commercial and light industrial activities. Seventy-seven priority pollutants were detected in samples of storm water discharges from residential, commercial and light industrial lands taken during the NURP study, including 14 inorganic and 63 organic pollutants. Table A–1 shows the priority pollutants which were detected in at least ten percent of the discharge samples which were sampled for priority pollutants.

Priority Pollutants Detected in at Least 10% of NURP Samples

TABLE A–1

	Frequency of detection (percent)
Metals and Inorganics:	
Antimony	13
Arsenic	52
Beryllium	12
Cadmium	48
Chromium	58
Copper	91
Cyanides	23
Lead	94
Nickel	43
Selenium	11
Zinc	94
Pesticides:	
Alpha-hexachlorocyclohexane	20
Alpha-endosulfan	19
Chlordane	17
Lindane	15
Halogenated aliphatics: Methane, dichloro	11
Phenols and cresols:	
Phenol	14
Phenol, pentachloro-	19
Phenol, 4-nitro	10
Phthalate esters: Phthalate, bis(2-ethylhexyl)	22
Polycyclic aromatic hydrocarbons:	
Chrysene	10
Fluoranthene	16
Phenanthrene	12
Pyrene	15

The NURP data also showed a significant number of these samples exceeded various freshwater water quality criteria.

The NURP study provides insight on what can be considered background levels of pollutants for urban runoff, as the study focused primarily on monitoring runoff from residential, commercial and light industrial areas. However, NURP concluded that the quality of urban runoff can be adversely impacted by several sources of pollutants that were not directly evaluated in the study and are generally not reflected in the NURP data, including illicit connections, construction site runoff, industrial site runoff and illegal dumping.

Other studies have shown that many storm sewers contain illicit discharges of non-storm water, and that large amounts of wastes, particularly used oils, are improperly disposed in storm sewers. Removal of these discharges present opportunities for dramatic improvements in the quality of storm water discharges. Storm water discharges from industrial facilities may contain, in addition to illicit connections and improperly disposed wastes, toxics and conventional pollutants when material management practices allow exposure to storm water.

In some municipalities, illicit connections of sanitary, commercial and industrial discharges to storm sewer systems have had a significant impact on the water quality of receiving waters. Although the NURP study did not emphasize identifying illicit connections to storm sewers other than to assure that monitoring sites used in the study were free from sanitary sewage contamination, the study concluded that illicit connections can result in high bacterial counts and dangers to public health. The study also noted that removing such discharges presented opportunities for dramatic improvements in the quality of urban storm water discharges.

Other studies have shown that illicit connections to storm sewers can crate severe, wide-spread contamination problems. For example, the Huron River Pollution Abatement Program inspected 660 businesses, homes and other buildings located in Washtenaw County, Michigan and identified 14% of the buildings as having improper storm drain connections. Illicit discharges were detected at a higher rate of 60% for automobile related businesses, including service stations, automobile dealerships, car washes, body shops and light industrial facilities. While some of the problems discovered in this study were the result of improper plumbing or illegal connections, a majority were approved connections at the time they were built.

Intensive construction activities may result in severe localized impacts on water quality because of high unit loads of pollutants, primarily sediments. Construction sites can also generate other pollutants such as phosphorus and

nitrogen from fertilizer, pesticides, petroleum products, construction chemicals and solid wastes. These materials can be toxic to aquatic organisms and degrade water for drinking and water-contact recreation. Sediment runoff rates from construction sites are typically 10 to 20 times that of agricultural lands, with runoff rates as high as 100 times that of agricultural lands, and typically 1,000 to 2,000 times that of forest lands. Even a small amount of construction may have a significant negative impact on water quality in localized areas. Over a short period of time, construction sites can contribute more sediment to streams than was previously deposited over several decades.

B. Previous Regulatory Approaches

The appropriate means of regulating storm water point sources within the National Pollutant Discharge Elimination System (NPDES) program has been a matter of serious concern since implementation of the NPDES program. Each attempt to devise a workable program has been the focus of substantial controversy, in view of the large number of storm water sources, the nature of storm water runoff and the realities of program priorities and resources. In 1973, EPA promulgated its first storm water regulations exempting from permit requirements those conveyances carrying storm water runoff uncontaminated by industrial or commercial activity unless the particular storm water discharger had been identified by the NPDES Director as a significant contributor of pollution (38 FR 13530 (May 22, 1973)). The Agency maintained that, while these sources fell within the definition of a point source, they were nonetheless ill-suited to the traditional end-of-pipe, technology-based controls that are the basis of the NPDES program for process discharges and discharges from Publicly-Owned Treatment Works (POTWs). Because of the intermittent, variable and unpredictable nature of storm water discharges, EPA reasoned that the problems caused by storm water discharges were better managed at the local level through nonpoint source controls such as the imposition of specific management practices to prevent the pollutants from entering the runoff. The Agency also justified its decision by noting that issuing individual NPDES permits for the hundreds of thousands of storm water point sources in the United States would create an overwhelming administrative burden and would divert resources away from control of industrial process wastewater and municipal sewage, which at the time, were more pressing and identifiable environmental problems.

In the first in a series of challenges to the storm water regulations, the Natural Resources Defense Council (NRDC) brought suit in the U.S. District Court for the District of Columbia, challenging the Agency's authority to selectively exempt categories of point sources from permit requirements, *NRDC v. Train,* 396 F.Supp. 1393 (D.D.C. 1975), *aff'd, NRDC v. Costle,* 568 F.2d 1369 (D.C. Cir. 1977). The District Court held that EPA could not exempt discharges identified as point sources from regulation under the NPDES permit program. However, in acknowledging the administrative burden placed on the Agency by requiring individual permits, the court recognized EPA's discretion to use certain administrative devices, such as area permits, to help manage its workload. In addition, the court recognized some discretion on EPA's part to define what constitutes a point source.

In response to the District Court's decision in *NRDC v. Train,* EPA issued a rule on March 18, 1976, (41 FR 11307) establishing a comprehensive permitting program for all storm water discharges except for rural runoff uncontaminated by industrial or commercial activity. This rule substantially increased the number of storm water discharges subject to the NPDES program. Permits continued to be required for conveyances carrying contaminated storm water runoff from areas used for industrial or commercial activities, as well as storm water discharges designated by the permit-issuing authority as significant contributors of pollution. These sources were required to submit the then-existing individual permit applications required of industrial and commercial process wastewater dischargers. In addition, the 1976 rule brought into the permitting program separate storm sewers which were defined as "conveyance or system of conveyances . . . located in an urbanized area and primarily operated for the purpose of collecting and conveying storm water runoff." Channelized storm water runoff from rural areas continued to be defined as non-point sources unless designated otherwise by the permitting authority. Individual permit applications were not required for separate storm sewers at that point in time. EPA planned to study such discharges and issue "general" or area permits to such sources as these discharges were expected to be less significant than storm water contaminated by industrial wastes.

On June 7, 1979 and May 19, 1980, EPA published comprehensive revisions to the NPDES regulations (44 FR 32854 (June 7, 1979); 45 FR 33290 (May 19, 1980)). With regard to storm water discharges, these rules essentially retained the March 18, 1976 broad definition of storm water discharges subject to NPDES permit requirements, but applied new application requirements to storm water point sources. Under these regulations the same application information required of all industrial and commercial process wastewater dischargers would be required of all storm water point sources. This meant that the new individual permit application requirements of the 1979/1980 rules applicable to process wastewater discharges would also be required for all storm water discharges. These new requirements included testing under certain circumstances for a substantially greater number of pollutants identified in the 1977 amendments to the Clean Water Act (CWA) which stressed the control of toxic pollutants.

This regulation brought suits in several Court of Appeals and District Courts by a number of major trade associations, several of their member companies, NRDC and Citizens for a Better Environment. The suits challenged many aspects of the NPDES regulations, including the storm water provisions. Eventually all petitions for review were consolidated in the D.C. Circuit Court of Appeals (*NRDC v. EPA,* 673 F.2d 392 (D.C. Cir. 1980)).

After two years of intensive settlement negotiations with representatives of most of the petitioners, the Agency and industry petitioners signed a settlement agreement on July 7, 1982, which addressed a number of issues relating to the NPDES program, including storm water. Under the terms of the agreement, EPA agreed to propose changes to the storm water regulations (47 *FR* 52073 (November 18, 1982)). The proposal reflected the Agency's attempt to balance the environmental concerns associated with such discharges with the practical limitations of individual NPDES permits and the reality of limited resources. Thus, the proposal significantly narrowed the definition of storm water point source and reduced the application requirements. The proposal defined storm water point sources as consisting only of conveyances of storm water contaminated by process wastes, raw materials, toxics, hazardous pollutants or oil and grease.

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The proposal also reduced application requirements. Storm water discharges were proposed to be divided into two groups based on their potential for significant pollution problems. Group I sources (expected to pose more significant pollution problems) would continue to be required to submit Application Forms 1 and 2C applicable to industrial and commercial process wastewater dischargers except that effluent testing data would be required only for conventional pollutants. For all other pollutants, the applicant would only have to indicate whether they believed any such pollutants were present or absent and explain why. Application requirements were further reduced for Group II. Essentially, the only information that would be required for Group II sources would consist of basic information to identify the type, number and location of Group II discharges. No effluent testing data was proposed to be required at that time from these sources. The Agency also proposed to extend the deadline for submission of storm water permit applications to six months after promulgation of a final rule.

Finally, as also agreed to in the Settlement Agreement, EPA issued a letter stating that while the proposal was pending, EPA would not take enforcement action against storm water dischargers other than those (1) covered by an existing NPDES permit; (2) subject to effluent limitations guidelines or toxic pollutant standards; or (3) designated as a significant contributor of pollutants. This "non-enforcement policy" did not apply to existing enforcement actions, and did not affect the right of an approved NPDES State or citizens group to bring a suit against a storm water discharger.

EPA's 1982 proposal to address the storm water issue again generated considerable reaction and comment from industrial groups and trade associations. They asserted that the proposal did not go far enough in restricting the definition of storm water point sources. They maintained that most storm water discharges were *de minimis* sources of pollution and thus are not appropriately regulated under the NPDES program. States and environmental groups took the position that the CWA requires permits for storm water discharges regardless of the level of pollutants present in such discharges. They contended that the proposal went too far in narrowing the scope of coverage and questioned whether EPA had a legally sufficient or technically supportable basis for the Group I/Group II designations in the proposal. EPA considered these public comments and published final storm water regulations on September 26, 1984 (49 FR 37998).

The 1984 final rule recognized that there are two fundamental issues regarding the NPDES regulation of storm water: (1) which storm water discharges are point sources and therefore within the NPDES program, and (2) what is the best way to regulate these sources.

On the first issue, the Agency was persuaded by commenters that the 1982 proposal had gone too far in narrowing the scope of coverage. Data available to EPA, such as the National Urban Runoff Program (NURP) study, indicated that there are water quality problems associated with storm water runoff in some situations. Thus, the final rule retained the broad coverage of the 1980 rule in mandating the permitting of all storm water point sources that discharge pollutants into waters of the United States. The September 26, 1984 rule defined a storm water point source as a channelized conveyance of storm water runoff that (1) is located in an urbanized area as defined by the Bureau of Census, or (2) discharges from lands of facilities used for industrial or commercial activities, or (3) is designated by the Director.

To address the second issue of how to regulate these sources administratively, the final rule retained the two-tiered classification described in the November 18, 1982 proposal. Thus, the final rule set forth two categories of storm water point sources with different application requirements for each. Group I storm water point sources were defined as those subject to effluent limitations guidelines, located at an industrial plant or plant associated area, or designated by the Director. All other storm water point sources were classified as Group II. Group I dischargers were required to complete both Form 1 and Form 2C, the NPDES Application Form for industrial and commercial process wastewater discharges, including certain sampling and testing data. The application requirements for Group II were significantly reduced from their existing requirements. Group II sources were required to submit only Form 1 plus a narrative description of the drainage area, receiving water, and any treatment applied to the discharge. Since Group II sources were expected to pose less significant pollution problems generally and therefore be a lower priority for permit issuance, additional information could be collected on these sources at a later date when permits were issued to these sources.

The final rule also revoked the non-enforcement letter issued as part of the Settlement Agreement and a new permit application deadline of April 26, 1985 was established.

These storm water regulations generated considerable controversy (through post-promulgation comment) and, once again, suits were filed. With regard to coverage, it was claimed that the new definitions would subject thousands of discharges to the program for the first time. In fact, the EPA's view, the coverage of storm water point sources under the NPDES program was essentially unchanged by the September 26 rulemaking. The 1984 rules deleted the term "contaminated" and relied instead on geographic criteria. However, this change in nomenclature resulted in the same coverage of discharges.

In post-promulgation comments on the 1984 rule, various industries and trade associations claimed that the April 26 application deadline would be impossible for many dischargers to meet. It was argued that many discharges were located in areas where testing during the winter months would not be feasible. It was also pointed out that the intermittent and unpredictable nature of storm water would result in difficult and time-consuming data gathering, and that six months was not enough time to locate, identify, sample and test thousands of storm water point sources. Many comments expressed the view that requiring full samplying from every single Group I discharger was excessive in terms of providing sufficient data for general permits, the preferred means of regulating these sources. They argued that the Agency would be overwhelmed with an unmanageble amount of data that would only be outdated by the time EPA and the States were able to issue permits. Commenters also objected to the expense of the testing when such data might not be utilized in a timely manner.

The environmental groups maintained that, at a minimum, EPA's decisions as reflected in the final rule were supported by the record and should not be changed without strong justification supported by hard data. They expressed concern that any change or delay would only exacerbate what they perceived as EPA's failure to regulate these sources of pollutants.

Upon consideration of these post-promulgation comments, EPA concluded that it was essential to obtain additional data on storm water discharges to assess their significance as an enviromental problem, and to identify the best means of control. However, even though the number of dischargers

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required to submit quantitative testing data had been reduced by the 1984 rule, tens of thousands of storm water point sources remained to be identified, tested and analyzed. Despite the improvments made in the 1984 regulation, EPA realized it was appropriate to request comment on whether the collection of data from each individual Group I discharger was necessary and efficient. In addition, EPA realized that new deadlines would need to be established. Thus, in an attempt to balance environmental concerns with administrative and practical feasibility, EPA published proposed changes to the storm water regulations on March 7, 1985 at 50 FR 9362.

II. March 7, 1985, Proposed Rule

A. Discussion

Several changes to the application requirements for Group I sources were proposed in the March 7, 1985 proposal. For industrial facilities, the system proposed in the March 7 notice would rely primarily on voluntary, written commitments from trade associations to submit quantitative data from selected representative Group I sources. In this way, EPA could obtain a manageable quantity of data to allow for the establishment of permitting priorities and the development of general permits, thereby reducing the cost to applicants and the administrative burden on EPA and State resources.

EPA proposed that the requirement that Group I dischargers submit Form 2C (sampling and analysis data of effluent) be eliminated. In lieu thereof, Group I dischargers would submit Form 1 and the narrative already required of Group II, with two additions: Group I applicants would also submit any available existing quantitative data for certain pollutants, and would identify (no sampling required) the presence of pollutants listed in the rule: oil and grease, total organic carbon, chemical oxygen demand, and any pollutant listed in Appendix D of 40 CFR Part 122 that the applicant knew or had reason to believe were present in its storm water discharge. The March 7 notice proposed no changes to the Group II application requirements.

As noted above, in proposing to suspend Form 2C, the Agency was relying in part on commitments from industries and trade associations that they would submit representative quantitative effluent testing data during 1985. In December 1984 and February 1985, EPA held meetings with representatives of several industries and trade associations who had raised concerns with the requirements of the September 26 final rule. At those meetings, a number of industry groups indicated a willingness to provide the Agency with representative data on the storm water discharges of their membership.

To follow up on these assurances, the Agency held a meeting on March 7, 1985, in order to clarify the details of this data-gathering initiative. This meeting was attended by representatives of several dozen industry trade associations, a few individual companies and an environmental group. At this meeting, EPA set forth criteria and minimum standards for the voluntary group data submissions. EPA requested that trade associations make a formal commitment to provide representative data and submit these data to EPA by Septembr 1, 1985. The Agency envisioned that these data would supplement existing data available to it and could provide a basis for establishing permitting priorities and setting permit terms and conditions. EPA held a second meeting on March 22 to further refine and explain the data-gathering process. Twenty-nine commitment letters were ultimately received.

With regard to the application deadline, the March 7 proposal suggested a deadline of December 31, 1985, and requested comments on the possibility of extending the deadline still further for Group II storm water point sources. As discussed in greater detail below, this part of the proposal was addressed in a final rule (50 FR 35200 (August 29, 1985)). The August 29 rule extended the deadline to December 31, 1987 for Group I, and June 30, 1989 for Group II.

The March 7 proposal also requested comments on whether, in the event the Form 2C requirement was retained, the regulations should include discretionary authority for the Director of the Office of Water Enforcement and Permits to waive the quantitative data submission requirement for a class or category of Group I storm water point sources.

B. Reaction of Comments

On hundred and thirty-two comments on the March 7 proposal were received from industries, trade associations, States, cities, Federal agencies and environmental groups. All but two commenters supported EPA's proposal as a manageable and environmentally sound approach to the storm water permitting problem. The two environmental groups commenting on the proposal objected to it on a number of grounds. At a minimum, they favored withdrawal of the proposal and retention of the September 26 requirements.

After evaluating the comments received on the March 7 proposal, assessing the commitments received from trade associations, and re-examining the issues, EPA decided to reopen the comment period on the March 7 notice to provide additional information and issues for public comment.

III. August 12, 1985, Reopener Notice

A. Group Application Option, Process and Procedures

On August 12, 1985 (50 FR 32548), EPA reopened the comment period on the March 7 proposal and requested comments on a group application approach for Group I applicants that essentially would codify the plan for submission of representative data detailed in the March 7, 1985 proposal and discussed at the two public meetings held that same month with representatives of trade associations, individual companies, and an environmental group.

Although EPA had received 29 commitment letters from trade associations (and a few individual companies) that indicated a willingness to voluntarily submit representative storm water data from their memberships, the Agency was concerned that such letters might not provide a sufficient basis for suspending the Application Form 2C requirement for all Group I sources. In EPA's view, the voluntary data submissions would not necessarily justify the elimination of testing requirements for those Group I sources that were either not covered by a trade association submission or chose not to participate in the voluntary data submissions. The 29 commitment letters that the Agency received also indicated widespread confusion about the scope of coverage for the data submissions by the trade associations. In addition, there was confusion about the appropriate pollutants to be sampled and analyzed and then submitted to the Agency as representative of the storm water discharges of the members of the group.

Nevertheless, the Agency still regarded the submission of representative data as the most practical and efficient means of determining appropriate permit terms and conditions, as well as permitting priorities, for the multitude of storm water point source discharges requiring NPDES permits. The August 12 proposal attempted to build upon the efforts expended by both the Agency and those

trade associations that cooperated under the March 7 voluntary approach.

The major element of the August 12 proposal was that all Group I storm water point sources would have to submit either an individual NPDES application (Form 1 and Form 2C) or participate in an approved group application. The group application was an optional alternative to the submission of the usual individual NPDES application, with the normal regulatory provisions governing permit application and issuance still applicable.

Under the proposed group application option, representative data on storm water discharges would be compiled by a trade association or similar representative entity for a subcategory or category of dischargers. The group submission would satisfy the application requirements for any storm water discharger falling within the particular subcategory or category.

The group application was to consist of two parts: Part 1 and Part 2. Part 1 would be a commitment by the trade association or representative entity to submit quantitative data from individual representative facilities within the subcategory or category, as well as a complete description of the group's data collection plans. Part 1 would also characterize the facilities covered under the group application and provide an identification of those individual facilities that would do the actual pollutant sampling and analyses. EPA proposed that those individual facilities submitting quantitative data would have to appropriately represent the subcategory or category covered by the group application. Factors proposed to ensure representativeness were a range of operations, sizes and geographic locations, facilities with and without treatment of their storm water discharges, data from facilities connected to sanitary sewers and from facilities discharging storm water directly to waters of the U.S. The Agency also proposed that the group application contain submissions from 10 percent of the subcategory or category, with a minimum of 10 individual facilities. Any historical data on storm water discharges from facilities within the group application were also to be submitted. Other discharges covered by the group application would not be required to submit individual Forms 1 and 2C.

EPA proposed to accept group applications based upon industrial subcategories as defined in 40 CFR Subchapter N. The Agency felt that the submission of a group application covering a subcategory of dischargers would allow for more effective analysis of any quantitative data received, as well as provide a clearer basis for subsequently developed permit terms and conditions. Submission on the basis of subcategories was also considered appropriate to avoid the "blurring of categories" due to the overlap of trade associations' memberships identified in the 29 voluntary commitment letters. However, the Agency did not preclude the submission of data by categories as long as the criteria for representativeness was met. Comments were requested on the acceptance of group applications based upon subcategories.

The August 12 notice also proposed that Part 1 of a group application would be submitted to the Office of Water Enforcement and Permits (OWEP) at EPA Headquarters in Washington, D.C. no later than 90 days after the publication date of any final rule. The Agency also solicited public comments on whether any group application should be accepted after the 90-day deadline. The Agency stated that it preferred the 90-day deadline be mandatory, such that failure to submit a Part 1 within that time would preclude the group application option for those dischargers within the subcategory or category.

Part 1 applications submitted to OWEP would be reviewed for acceptability based on the proposed representative ceriteria and in accordance with 40 CFR 122.21(e) [completeness of NPDES permit applications]. Comments were solicited on the appropriateness of the proposed representative criteria.

The Agency proposed that a notice would be published in the Federal Register if OWEP determined that a Part 1 application was accepted for a particular subcategory or category of storm water dischargers. If a Part 1 application were unacceptable, OWEP could either deny the group application or request changes to the application and then make a final decision on the acceptability of the group application. Even if a group application were accepted, permitting authorities would retain the right to require an individual permit application from any individual storm water discharger.

Any storm water discharger falling within a subcategory or category for which a group application had been accepted would have the option of being covered under the group application or submitting an individual NPDES permit application. If the discharger chose coverage under the group application, no individual information would be required (unless that discharger was identified as one of the individual facilities submitting quantitative data for the group application). The Agency proposed that in lieu of all sources covered by the group application submitting a Form 1, sources would submit a Notice of Intent (NOI) to the permitting authority if the facility wished to be covered under the general permit for that subcategory or category.

Any Group I source that did not fall within a group application (or desiring not to be covered by the group application) would submit an individual NPDES permit application for their storm water discharges. Individual permit applications would be submitted to the applicable permitting authority (i.e., an EPA Regional Office or an NPDES State). the deadline for submittal of individual applications would be the same as that for Part 2 of the group application, December 31, 1987.

The August 12 proposal explained that Part 2 of the group application would consist of the actual quantitative effluent data from the representative facilities within the covered subcategory or category. Those individual facilities selected to perform sampling and analyses under the group application were to test for:

- Any pollutant limited in an effluent limitations guideline for its subcategory or category;
- Any pollutant listed in the individual facility's NPDES permit for its process wastewater;
- Oil and grease, TOC, COD, pH, BOD; and
- Any information on the discharge required under 40 CFR 122.21 (g)(7)(iii) (A) and (B).

The Agency requested public comments on the suitability of the pollutants to be tested, and their sufficiency to determine accurately the characteristics of storm water discharges.

EPA also proposed that those individual facilities selected to provide quantitative data under the group application would sample all of their storm water outfalls. EPA stated that since the individual facilities' data would be considered representative of the subcategory or category, it was appropriate to require information on all storm water outfalls in order to fully characterize the facilities' discharges.

Further, the August 12 proposal requested comment on the possibility of a waiver from testing certain pollutants for group applicants. 40 CFR 122.21(g)(7)(i)(B) of the existing NPDES regulations provides authority to the permitting authority to waive permit application reporting requirements for certain pollutants if the applicant

demonstrates to the satisfaction of the permitting authority that such information is unnecessary. Comment was also solicited on what data should be furnished to support such a waiver request.

Each individual facility submitting actual quantitative data under Part 2 of the group application would complete an NPDES permit Application Form 1 and form 2C. Both Form 1 and Form 2C would be signed by the individual facilities in accordance with the signatory requirements contained in 40 CFR 122.22.

The trade association or representative entity that submitted Part 1 of the group application would compile the individual Form 1s and Forms 2Cs, and would attach a narrative certifying that the Part 2 submission corresponds to the submission described in Part 1. The Agency requested comments on its proposal that the Part 2 narrative would be signed by an association officer (or comparable individual) responsible for policy or decision making functions and to whom authority to sign documents on behalf of the group applicants had been assigned. All Form 1s and Form 2Cs would be signed by the individual facilities in accordance with the general signatory requirements of 40 CFR 122.22.

Like Part 1 of the group application, Part 2 would be submitted to OWEP for review and used to develop permit issuance priorities and model general permit terms and conditions. The group application option and process comported with the Agency's intent to issue general permits in most instances to cover storm water point sources.

The August 12 proposal explained that the group application option, if promulgated as proposed, would only apply to those facilities in States not approved to administer the NPDES permit program (i.e., where EPA is the permit-issuing authority). Facilities within approved NPDES States must follow existing State regulations. Approved NPDES States, of course, would be free to amend their regulations to adopt the group application option for all storm water dischargers or as an alternative to individual storm water permit applications in certain cases. The Agency requested that States, especially NPDES States, comment on the proposed group application process. In addition, EPA strongly recommended in the proposal that NPDES States without general permit authority approved by EPA seek such authority since the ability to issue general permits provide an effective and efficient means of permitting certain storm water point sources and would allow States to make the best use of the results of the group applications.

B. Classification of Publicly-Owned Separate Storm Sewers

The August 12 reopener notice also requested comments on the Agency's clarification of whether publicly-owned separate storm sewers located in urbanized areas were classified as Group I or Group II storm water point sources. The Agency considered the September 26, 1984 final regulations to be ambiguous on this point, as evidenced by the numerous telephone inquiries received immediately after publication of the final rule addressing this issue. The August 12 proposal stated the Agency's view that municipal storm water sewers designed only to convey storm water runoff (a.k.a., publicly-owned separate storm sewers) are Group I storm water point sources based on the data available to the Agency through the National Urban Runoff Program (NURP) study. The NURP study found that in many instances storm water discharged from publicly-owned separate storm sewers was indeed contaminated with conventional pollutants (e.g., suspended solids and fecal coliform) as well as heavy metals (e.g., lead, copper, zinc, and cadmium). Because of the significance such discharges can have for water quality, the Agency felt that it was appropriate to classify publicly-owned separate storm sewers as Group I sources. The Agency requested comments on whether this clarification/classification was appropriate.

C. Discharges into Publicly-Owned Separate Storm Sewers

Under the September 26, 1984 final rule, dischargers into a publicly-owned separate storm sewer must either be covered by an individual NPDES permit or by a permit issued to the municipality or public entity operating the system. This provision, one of the items clarified under the terms of the NPDES Settlement Agreement (June 1982), which EPA proposed in November 1982, allowed the operator of the outfall discharging directly to waters of the U.S. to decline responsibility for discharges into the system while applying for a permit for the outfall.

The "either/or" nature of the September 26 rule allowed a municipality to decline responsibility for non-municipal storm water discharges into the publicly-owned separate storm sewer system. In this case, all non-municipal dischargers into the municipal system would be responsible for applying for and obtaining individual NPDES permits. This approach might conceivably mean that hundreds of thousands of individual NPDES permit applications would be received duplicating the information contained in the municipal storm water permit application(s).

The catch basins, pipes and outfalls that comprise a publicly-owned separate storm sewer system may be owned by a municipality, a flood control district, or various other public service entities. Under the NPDES regulations, such systems are not considered to be a "publicly-owned treatment works" (POTW) because they do not convey discharges to the POTW. For purposes of the NPDES regulations, separate storm sewers are non-POTW point sources and are subject to regulation in a manner that is analogous to privately-owned treatment systems. Under 40 CFR 122.44(m) [privately-owned treatment works], the Agency can require permits for any, some, or all of the contributors to the system.

In the August 12 notice, EPA solicited public comment on the appropriateness of relying on the issuance of permits to the municipality or public entity responsible for the separate storm sewer system, thereby relieving all dischargers of storm water into the system of the need to apply for and obtain individual NPDES permits. The permitting authority would retain the authority to designate operators of such contributing storm water discharges as co-permittees or to require individual permits.

EPA proposed that the municipality or other public entity responsible for the separate storm sewer would be required to identify all those Group I discharges into the system but would not be required to identify those Group II discharges into the system. The Agency stated that this was the most feasible means of covering the hundreds of thousands of discharges into publicly-owned storm water collection systems. Since the public entity (e.g., a municipality) is currently required to obtain an NPDES permit for the separate storm sewer system's individual outfalls, a "single permit" approach would relieve the paperwork burden on both potential permittees and permitting authorities. The Agency also felt that such an approach was likely to be the most environmentally sound, since the ability of permitting authorities to issue quality permits and address the cumulative impacts of storm water discharges would be enhanced.

IV. Water Quality Act of 1987

At the same time that EPA was evaluating the appropriate means to regulate storm water discharges,

Congress was examining the storm water issue in the course of the reauthorization of the Clean Water Act. Both the Senate and the House of Representatives passed bills to amend the Clean Water Act in the summer of 1985 that contained provisions addressing the storm water issue. The separate House and Senate bills were reconciled in Conference Committee in 1986, and on February 4, 1987, Congress passed the Water Quality Act of 1987 (WQA).

The WQA contains three provisions which specifically address storm water discharges. The central provision governing storm water discharges is section 405 which adds section 402(p) to the CWA. Section 402(p)(1) provides that EPA or NPDES States cannot require a permit for certain storm water discharges until October 1, 1992 except for storm water discharges exempted under section 402(p)(2). Section 402(p)(2) lists five types of storm water discharges which are required to obtain a permit prior to October 1, 1992:

(A) A discharge with respect to which a permit has been issued prior to February 4, 1987;

(B) A discharge associated with industrial activity;

(C) A discharge from a municipal separate storm sewer system serving a population of 250,000 or more;

(D) A discharge from a municipal separate storm sewer system serving a population of 100,000 or more, but less than 250,000; or

(E) A discharge for which the Administrator or the State, as the case may be, determines that the storm water discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to the waters of the United States.

Section 402(p)(2) requires EPA to promulgate final regulations governing storm water permit application requirements for storm water discharges associated with industrial activity and discharges from large municipal separate storm sewer systems (systems serving a population of 250,000 or more), by "no later than two years" after the date of enactment (i.e., no later than February 4, 1989). The WQA also requires EPA to promulgate financial regulations governing storm water permit application requirements for discharges from medium municipal separate storm sewer systems (systems serving a population of 100,000 or more but less than 250,000) by "no later than four years" after enactment (i.e., no later than February 4, 1991).

In addition, Section 402(p)(4) provides that permit applications for storm water discharges associated with industrial activity and discharges from large municipal separate storm sewer systems "shall be filed no later than three years" after the date of enactment of the WQA (i.e., no later than February 4, 1990). Permit applications for discharges from medium municipal systems must be filed "no later than five years" after enactment (i.e., no later than February 4, 1992).

NPDES permits for all other storm water discharges cannot be required until October 1, 1992, unless a permit for the discharge was issued prior to the date of enactment of the WQA (i.e., February 4, 1987), or the discharge is determined to be a significant contributor of pollutants to waters of the United States or is contributing to a violation of water quality standards.

The WQA clarified and amended the requirements for permits for storm water discharges in the new CWA section 402(p)(3). The Act clarified that permits for discharges associated with industrial activity must meet all of the applicable provisions of section 402 and section 301 including technology and water quality based standards. However, the new Act makes significant changes to the permit standards for discharges from municipal storm sewers. Section 402(p)(3)(B) provides that permits for such discharges:

(i) May be issued on a system- or jurisdiction-wide basis;

(ii) Shall include a requirement to effectively prohibit non-storm water discharges into the storm sewers; and

(iii) Shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Director determines appropriate for the control of such pollutants.

These changes, including the standard of maximium extent practicable (MEP), are discussed in more detail later in today's notice.

The EPA, in consultation with the States, is required to conduct two studies on storm water discharges that are in the class of discharges for which EPA and NPDES States cannot require permits prior to October 1, 1992. The first study will identify those storm water discharges or classes of storm water discharges for which permits are not required prior to October 1, 1992 and determine, to the maximum extent practicable, the nature and extent of pollutants in such discharges. The second study is for the purpose of establishing procedures and methods to control storm water discharges to the extent necessary to mitigate impacts on water quality. Based on the two studies, the EPA in consultation with State and local officials, is required to issue regulations by no later than October 1, 1992 which designate additional storm water discharges to be regulated to protect water quality and establish a comprehensive program to regulate such designated sources. This program must, at a minimum, (A) establish priorities, (B) establish requirements for State storm water management programs, and (C) establish expeditious deadlines. The program may include performance standards, guidelines, guidance, and management practices and treatment requirements, as appropriate.

Section 401 of the WQA amends section 402(l)(2) of the CWA to provide that the EPA shall not require a permit for discharges of storm water runoff from mining operations or oil and gas exploration, production, processing, or treatment operations or transmission facilities if the storm water discharge is not contaminated by contact with, or does not come into contact with, any overburden, raw material, intermediate product, finished product, byproduct, or waste product located on the site of such operations.

Section 503 of the WQA amends section 502(14) of the CWA to exclude agricultural storm water discharges from the definition of point source.

V. Remand of 1984 Regulations

On December 4, 1987, the United States Court of Appeals for the District of Columbia Circuit vacated 40 CFR 122.26 (as promulgated on September 26, 1984), and remanded the regulations to EPA for further rulemaking (*NRDC* v. *EPA*, No. 80–1607). EPA had requested the remand because of significant changes made by the storm water provisions of the WQA. The effect of the decision was to invalidate the storm water discharge regulations then found at § 122.26.

At the time of remand, § 122.26 set forth, among other things, the definitions for "storm water point source", "Group I storm water discharge", and "Group II storm water discharge" and criteria for designating a conveyance or system of conveyances as a storm water point source on a case-by-case basis.

On February 12, 1988 (53 FR 4157), EPA published a notice which deleted § 122.26 pursuant to the Court of Appeals' remand. The February 12, 1988, notice also deleted the deadlines for submittal of Group I and Group II storm water discharge permit applications set forth in § 122.21(c)(2). Section 122.21(c)(2) provided that permit applications must be submitted by

December 31, 1987, for Group I storm water discharges and June 30, 1989, for Group II storm water discharges. The section also required that any discharge that is designated on a case-by-case basis pursuant to § 122.26 must submit a storm water discharge permit application within 6 months of notification.

Storm water discharges which have been issued an NPDES permit prior to February 4, 1987, were not affected by the Court remand or the February 12, 1988, rule. (See section 402(p)(2)(A) of the CWA.) Similarly, the remand and the rulemaking did not affect the authority of EPA or an NPDES State to require a permit for any storm water discharge (except an agricultural storm water discharge) designated under section 402(p)(2)(E) of the CWA. The notice clarified that such designated discharges meet the regulatory definition of point source found at 40 CFR 122.2 and that EPA or an NPDES State can rely on the statutory authority and require the filing of an application (Form 1 and Form 2C) for an NPDES permit with respect to such discharges, on a case-by-case basis.

VI. Codification Rule

In the near future, EPA intends to publish a final rule which will codify numerous provisions of the WQA into EPA regulations. The codification rule will include several provisions dealing with storm water discharges. The codification rule will promulgate the language found at sections 402(p) (1) and (2) of the amended Clean Water Act at 40 CFR 122.26(a)(1). In addition, the codification rule will promulgate Section 503 of the WQA which exempted agricultural storm water discharges from the definition of point source at 40 CFR 122.2. Finally, EPA intends to codify Section 401 of the WQA addressing uncontaminated storm water discharges from mining or oil and gas operations at 40 CFR 122.26(a)(2).

In the codification notice, EPA intends to codify the statutory authority of section 402(p)(2)(E) of the CWA for the Administrator or the State, as the case may be, to designate storm water discharges for a permit on a case-by-case basis at 40 CFR 122.26(a)(1)(v). The provision authorizes such a designation if the Administrator or the State determines that the storm water discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States. The case-by-case designation authority can be used to require a designated storm water discharge associated with industrial activity or a discharge from a municipal separate storm water system serving a population of 100,000 or more to obtain a permit prior to the time frame proposed in today's notice for the particular class of storm water discharges in question. In addition, the designation authority applies to storm water discharges that are not otherwise required to obtain a permit prior to October 1, 1992, under section 402(p)(1), but that are contributing to a violation of a water quality standard or are a significant contributor of pollutants to waters of the United States.

In determining that a storm water discharge contributes to a violation of a water quality standard or is a sigificant contributor of pollutants to waters of the United States for the purpose of a designation under section 402(p)(2)(E), the legislative history for the provision provides that "EPA or the State should use any available water quality or sampling data to determine whether the latter two criteria (contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States) are met, and should require additonal sampling as necessary to determine whether or not these criteria are met". Conference Report, *Cong. Rec.* S16443 (daily ed. October 16, 1986). In accordance with this legislative history, EPA intends to require storm water dischargers whose discharges are being considered for designation to submit permit applications in accordance with the requirements of 40 CFR 122.21 to be used to aid in the determination of whether the discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States. The agency will consider a number of factors when determining whether a storm water discharge is a significant contributor of pollution to the waters of the United States. These factors include: the location of the discharge with respect to waters of the United States; the size of the discharge; the quantity and nature of the pollutants reaching waters of the United States; and any other relevant factors. Today's notice proposes to incorporate these factors at 40 CFR 122.26(a)(1)(v).

Today's notice proposes to modify the permit application requirements for certain storm water discharges, including discharges designated on a case-by-case basis. Until these requirements are promulgated, operators of storm water discharges considered for designation must submit permit applications in accordance with the requirements of 40 CFR 122.21 (Form 1 and Form 2C). The exemption from certain application requirements given to Group II storm water discharges does not apply to facilities designated on a case-by-case basis. The Group II classification, which was remanded by the Court of Appeals in its December 4, 1987, order, was never intended to apply to storm water discharges which were designated on a case-by-case basis.

Until today's notice is promulgated and becomes effective, case-by-case designations, where appropriate, will be modeled after existing regulatory procedures found at 40 CFR 124.52 for NPDES permits required on a case-by-case basis. The procedures at 124.52 require that whenever the Regional Administrator decides that an individual permit is required, the Regional Administrator shall notify the discharger in writing of the decision that the discharge requires a permit and the reasons for the decision. In addition, an application form is to be sent with the notice. In implementing § 402(p)(2)(E), the Regional Administrator generally will notify the discharger in writing that the discharge is being considered for designation, and the reasons for the consideration. An application form will be sent with the notice. Deadlines for submitting permit applications will also be established on a case-by-case basis. Section 124.52 provides a 60 day period from the date of notice for submitting a permit application. Although this 60 day period may be appropriate for many designated storm water discharges, site specific factors may dictate that the Administrator or NPDES State provide additional time for submitting a permit application. For example, due to the complexities associated with designation of a municipal separate storm sewer system for a system- or jurisdiction-wide permit, the Administrator or NPDES State may provide the applicant with additional time to submit relevant information or may require that information be submitted in several phases.

VII. Today's Notice

Because of the long and complex history of the storm water permit application rulemaking and the subsequent enactment of the WQA, significant changes from the March 7, 1985 proposal and August 12, 1985 reopener have been made in today's notice. Where appropriate, EPA addresses major comments to these earlier proposals in the presentation of today's notice. However, to avoid potential confusion between current and past proposals, EPA requests that comments submitted on today's notice focus on the regulatory proposal

presented in today's notice. EPA intends to promulgate final regulations based on a consideration of comments received on today's notice and will not necessarily address comments received during previous proposals in the final rule. In printing the proposed regulatory changes at the end of today's notice, where existing regulations are modified, this notice may contain the existing regulatory language along with proposed changes. The existing regulatory language that is printed without proposed change is printed for the purpose of clarifying associated proposed changes for commenters. EPA does not request comment on existing regulatory language that is printed without proposed change.

A. Overview

Section 405 of the WQA alters the regulatory approach to control pollutants in storm water discharges by adopting a phased and tiered approach. The new provision phases in permit application requirements, permit issuance deadlines and compliance with permit conditions for different categories of storm water discharges. The approach is tiered in that storm water discharges associated with industrial activity must comply with sections 301 and 402 of the CWA (requiring control of the discharge of pollutants that utilize the Best Available Technology (BAT)), but permits for discharges from municipal separate storm sewer systems must require controls to reduce the discharge of pollutants to the maximum extent practicable (MEP) and must include a requirement to effectively prohibit non-storm water discharges into the storm sewers. Furthermore, EPA in consultation with State and local officials must develop a comprehensive program to designate and regulate other storm water discharges to protect water quality.

Section 402(p)(1) of the amended CWA provides that EPA or NPDES States shall not require, with certain exceptions, permits for storm water discharge prior to October 1, 1992. During this grace period, EPA has three tasks.

EPA's first task is to identify storm water discharges which should be designated for immediate permitting because they contribute to a water quality standard violation or are significant contributors of pollutants to waters of the United States. Today's notice proposes to clarify the authority of the Administrator or NPDES State to require a permit for a storm water discharge prior to October 1, 1992, applies to any storm water discharge which the Administrator or NPDES State determines contributes to a water quality violation or is a significant contributor of pollutants to waters of the United States, unless the discharge is explicitly excluded from the NPEDES program (e.g., agricultural storm water discharges).

The second task is to begin to implement the storm water program by establishing permit application requirements and issuing permits for classes of storm water discharge that were specifically identified in section 402(p)(2). These priority storm water discharges include storm water discharges associated with industrial activity and discharges from a municipal separate storm sewer serving a population of 100,000 or more.

During this time, EPA will evaluate appropriate modifications for permit application requirements for storm water discharges which are designated for immediate permitting because they contribute to a water quality violation or are significant contributors of pollutants to waters of the United States.

EPA's third task under section 402(p) of the CWA is to consult with the States and conduct studies for the purpose of identifying storm water dischargers or classes of discharges for which permits are temporarily not required; determining the nature and extent of pollutants in such discharges; and establishing procedures and methods to control storm water discharges to the extent necessary to mitigate impacts on water quality. EPA is then required to issue regulations on or before October 1, 1992 which identify storm water discharges for which permits will be required to protect water quality. Identified storm water discharges are to be regulated under the comprehensive program which, at a minimum, establishes priorities, requirements for State storm water management programs, and expeditious deadlines.

Congress did not intend to limit the scope of the studies authorized by Section 402(p)(5) to the definition of storm water point source that was in EPA's regulations at 40 CFR 122.26(b)(1) on the date of enactment of the WQA. For example, the legislative history accompanying the provision states that after October 1, 1992, "*all* municipal separate storm sewers are subject to the requirements of sections 301 and 402." (emphasis added) (Vol. 132 Cong. Rec. H10576 (daily ed. October 15, 1986) Conference Report). Under the Agency's 1984 regulations, municipal separate storm sewers located outside urban areas were not storm water point sources unless designated on a case-by-case basis. However, Congress clearly did not intend to exclude these discharges from the section 402(p)(5) studies.

Today's notice does not propose to revive the remanded regulatory definition of storm water point source at this time. This action is taken to minimize the confusion between the regulatory program for storm water that was in place before the WQA was enacted and the new program that will be developed in accordance with the manadates of Section 405 of the WQA. In accordance with Congressional intend, EPA will continue to define the scope of the comprehensive program to regulate storm water discharges in rulemaking authorized under section 402(p)(6) of the CWA after completing the CWA section 402(p)(5) studies.

Until the scope of the storm water regulatory program is more completely defined, EPA will define which storm water discharges are required, in accordance with section 402(p)(2), to obtain permits. EPA will rely on the regulatory definition of "point source" at 40 CFR 122.2 to provide authority for requiring permits for those storm water discharges which are to be permitted prior to the completion of the rulemaking authorized under section 402(p)(6).

In addition, EPA does not propose to revive the remanded regulatory definitions of Group I and Group II storm water discharges. EPA is proposing and requesting comments on technical amendments to existing NPDES regulations to remove references to these terms.

B. Definition of Storm Water

Today's notice proposes to clarify the definition of storm water at 122.26(b)(10) as storm water runoff, surface runoff, street wash waters related to street cleaning or maintenance, infiltration (other than infiltration contaminated by seepage from sanitary sewers or by other discharges) and drainage related to storm events or snow melt. This proposed definition is consistent with the regulatory definition of "storm sewer" at 40 CFR 35.2005(b)(47) which is used in the context of grants for construction of treatment works. This definition aids in distinguishing separate storm sewer conveyances from sanitary sewers, combined sewers, process discharges and non-storm water non-process discharges.

In the WQA and other places, the term "storm water" is presented as a single word. The Agency, in preparing this notice, has attempted to consistently use the Government

Printing Office's approved form where storm water appears as two words. The Agency requests comment on the form (one-word or two) of the term perferred by the public.

C. Responsibility for Storm Water Discharges Associated with Industrial Activity into Municipal Separate Storm Sewers

1. Prior Approaches

In past rulemakings concerning permit applications and applicability for storm water discharges, EPA has, within the framework of the CWA, attempted to balance the need for addressing the environmental risk associated with storm water discharges with the administrative burden associated with processing permits and permit applications for the large number of storm water discharges. The regulatory term "storm water point source" was used to define which storm water discharges were subject to the NPDES program. However, under previous regulatory schemes, not all storm water point sources were required to submit an individual permit application. Under regulations promulgated under the September 26, 1984 final rule, one permit could be issued covering all storm water point sources that are discharged to a storm water conveyance system. Under this approach, all "storm water point sources" that discharge into a storm water conveyance system had to be covered either by an individual permit or a permit issued to an operator of the portion of conveyance which discharges directly to waters of the United States. Any permit written to cover more than one operator would have been required to identify the limitations applicable to each discharge. This "either/or" approach in the September 26, 1984 rule allowed the operator of the portion of the conveyance which discharges directly to waters of the United States to decline to assume responsibility for certain discharges into its separate storm sewer system. In that situation, operators of individual storm water point source discharges into the conveyance would have been responsible to file permit applications for their discharges.

In the August 12, 1985 (50 *FR* 32552) reopener notice, EPA requested comments on a proposal that would primarily hold municipalities responsible for obtaining a permit that would cover all the storm water point sources that discharged to a municipal storm water system. Under this approach, all operators of storm water point source discharges into a municipal separate storm sewer were to be relieved of the responsibility of having to obtain individual permits, unless the permitting authority designated such dischargers as a co-permittee with the municipality or required an individual permit from the operator of the discharge into the system. Under the August 12, 1985 proposal, the municipality responsible for the system would be required to identify Group I discharges into the municipal system. Sampling requirements for municipal separate storm sewers that received discharges from non-municipal Group I discharges were not specifically addressed in the August 12, 1985 notice, although the regulations in effect at that time required that applications for discharges from storm sewer systems contain any information regarding discharges into the system that would be required if separate applications were submitted for those discharges.

Fifty-seven (57) commenters addressed the proposal in the August 12 notice that would place the responsibility for applying for and obtaining an NPDES permit for all storm water discharges into the system upon the municipality or public service entity. Twenty-six (26) of the 57 felt that such an approach would relieve many individual operators of discharges from having to obtain permits, which would thereby reduce paperwork, but not reduce EPA's ability to address pollution problems. One municipality felt that under this approach, critical pollution sources could be identified and permitted individually if necessary. One industry representative claimed that individual municipalities are in the best position to determine if individual permits are needed for specific storm water discharges into the municipal system, while another industry representative argued that industrial dischargers into a municipal system should not be singled out for individual permits over discharges from shopping centers, parking lots, etc., which may have significant water quality impacts.

Twenty-one (21) commenters of the 47 were opposed to municipalities being responsible for obtaining a permit covering all discharges of storm water into the system. Eight (8) commenters, a county public service agency, 6 municipalities, and a land development company, cited the substantial costs involved in making a municipality responsible for all storm water discharges into its system, both in terms of identifying all discharges into the system and sampling and analytical costs. Three commenters (a county agency, a municipality, and a State) pointed out that a municipality may lack the authority to regulate non-municipal storm water point source discharges into its system, as well as nonpoint source runoff from many sources that drain into the municipal storm water sewer system. Two municipalities felt that industrial storm water discharges should be controlled by EPA, not the municipalities, while several other municipalities stated that the pollution generator may not be held responsible under the proposed approach.

Several municipalities argued that it is impossible to monitor all storm water inlets to the municipal system since municipalities, stated at least one municipal commenter, do not maintain records identifying dischargers into the system. Another municipality claimed that municipalities have already implemented activities to control storm water discharges (e.g., controls on construction site runoff, spill prevention and abatement ordinances, etc.) in order to improve water quality.

Several commenters objected to the requirement that municipalities identify all industrial storm water discharges into the municipal system since it shifts the burden of the regulatory requirements from the individual facility discharging to the municipal system to the municipality. They argued that there is no benefit to the municipalities under the proposed approach, and that the proposed approach was very complex and counterproductive. A county flood control district commented that a municipal storm water system does not create water pollution or change its ultimate destination. One municipality felt that any municipal group application should not require data on discharges into the municipal system, since that data should be similar to data from direct discharges.

An individual company felt that municipalities should not have the option of excluding non-municipal storm water discharges into the system in the permit covering the system, while on the other hand, two municipalities argued strongly that municipalities should be able to decline to assume responsibility for non-municipal discharges into the municipal system.

2. Today's Proposal Regarding Storm Water Discharges Associated with Industrial Activity into Large and Medium Municipal Separate Storm Sewer Systems

Under the scheme of section 405 of the WQA, operators of large municipal separate storm sewer systems (systems serving a population of 250,000 or more) and medium municipal separate storm sewer systems (systems serving a

population of 100,000 or more but less than 250,000), are required to submit permit applications for discharges from these systems prior to October 1, 1992. However, generally, permits are not required from operators of many storm water discharges (such as storm water discharges from certain commercial and residential facilities) into these large or medium municipal separate storm sewer systems prior to October 1, 1992, unless the Administrator or NPDES State determines that the discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to the waters of the United States. Thus, in enacting the WQA, Congress endorsed a regulatory scheme where municipalities responsible for obtaining NPDES permits for discharges from large and medium municipal separate storm sewer systems are clearly responsible for many storm water discharges which discharge into these municipal systems.

In addition to receiving storm water discharges that are generally not required to obtain a permit prior to October 1, 1992 under section 402(p)(1), large and medium municipal separate storm sewer systems receive storm water discharges that are also excluded from section 402(p)(1), including: storm water discharges which have been issued a permit prior to the enactment of the WQA (section 402(p)(2)(A)); storm water discharges associated with industrial activity (section 402(p)(2)(B)); and storm water discharges which the Administrator or NPDES State determines contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States (section 402(p)(2)(E)).

Today's notice requests comments on whether EPA should hold operators of large and medium municipal separate storm sewer systems primarily responsible for obtaining system-wide or area permits which cover storm water discharges associated with industrial activity which discharge into the municipal system, or if non-municipal operators of storm water discharges associated with industrial activity which discharge to large or medium municipal systems should be required to submit individual permit applications (or participate in a group application) for such discharges.

After a consideration of comments on the August 12, 1985 reopener, and reevaluation of the issue in light of the WQA, EPA still favors holding municipal operators of large or medium municipal storm sewer systems primarily responsible for applying for and obtaining an NPDES permit covering system discharges as well as storm water discharges to the system. Holding municipalities primarily responsible for obtaining a permit to cover storm water discharges associated with industrial activity which discharge into the municipal system would reduce the tremendous administrative burden associated with preparing and processing the thousands of permit applications that would be necessary if each storm water discharge associated with industrial activity that goes into a large or medium municipal separate storm sewer system had to apply individually (or as part of a group application). The Agency believes this approach is the most practical option available and holds the most promise for long-term environmental improvements.

The permit application requirements that EPA is proposing for large and medium municipal separate storm sewer systems, discussed in more detail later in today's notice, are intended to begin the development of this approach. EPA is proposing that municipal permit applications include the location of facilities which discharge storm water associated with industrial activity to the municipal system (see § VII.G.6 of the preamble). In addition, EPA is proposing that municipal applicants provide a description of a proposed management program to reduce, to the maximum extent practicable, pollutants from storm water discharges associated with industrial activity which discharge to the municipal system (see § VII.G.8.c of the preamble). The proposed management program will identify priorities and procedures for inspecting industrial facilities and for establishing and implementing measures to reduce the discharge of pollutants in such discharges. The municipal application will be used by permit writers to develop management programs which will be incorporated as permit conditions in the permit issued for discharges from the municipal separate storm sewer system.

Controls developed in management plans for municipal system permits may take a variety of forms. Where necessary, municipal permittees can pursue local remedies to develop measures to reduce pollutants or halt troublesome discharges into the large or medium municipal storm sewer system. This approach is consistent with several comments to the August 12, 1985 proposal, which stated that many local entities have already implemented ordinances or laws that regulate the discharge of pollutants, while other municipalities have developed a variety of techniques to control pollutants in storm water. Alternatively, where appropriate, municipal permittees may develop end-of-pipe controls such as wet detention ponds or diverting flow to Publicly Owned Treatment Works. Finally, municipal applicants will be provided with an opportunity to bring individual storm water discharges which cannot be adequately controlled by the municipal permittees to the attention of the permitting authority who then could, at the Director's discretion, require an individual permit for the storm water discharges into the public system or require such dischargers to be co-permittees to the municipal system permit by establishing conditions applicable to such users.

Some municipal agencies with certain storm water responsibilities have commented on previous rulemakings that they lack legal authority to regulate discharges into their system. The Agency's initial analysis of legal authorities such as ordinances and controls on construction site runoff indicate that such local municipalities have adequate legal authority either to control storm water flows or control pollutant discharges to municipal systems, to the degree necessary to implement the programs envisioned in today's proposal. The Agency requests comments on the legal authority of municipal permittees, including detailed legal analysis of the legal authority of municipalities which contend that they are precluded from exercising adequate authority to implement such controls due to lack of authorization from the State in which the municipality is located. The Agency requests comments on the circumstances when it is not appropriate to hold a municipality responsible for discharges to municipal systems and under what circumstances it is feasible to rely on treatment of storm water discharges in lieu of controls which require legal authority to implement.

Section 402(p)(3) of the CWA estabishes different standards for permits for storm water discharges associated with industrial activity and discharges from municipal separate storm sewers. Where individual permits are required for storm water discharges associated with industrial activity, these permits are required to meet all the applicable provisions of sections 402 and 301 of the Clean Water Act, including technology-based and, where necessary, water-quality based requirements. Permits for discharges from municipal separate storm sewers are required to adopt controls to reduce

the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. EPA anticipates that the application of maximum extent practicable controls developed in management programs in municipal system permits will generally result in similar levels of control on industrial discharges to the municipal separate storm sewer system as conditions placed in individual NPDES permits for storm water discharges associated with industrial activity.

In comparing the control mechanisms of individual permits and management plans developed in municipal separate storm sewer permits, it is important to note that currently, EPA has established effluent guideline limitations for storm water discharges for eight subcategories of industrial dischargers (Cement Manufacturing (40 CFR Part 411), Feedlots (40 CFR Part 412), Fertilizer Manufacturing (40 CFR Part 418), Petroleum Refining (40 CFR Part 419), Phosphate Manufacturing (40 CFR Part 422), Steam Electric (40 CFR Part 423), Coal Mining (40 CFR Part 434), and Ore Mining and Dressing (40 CFR Part 440)). Most of the existing facilities in these subcategories already have individual permits for their storm water discharges. Under today's proposal, facilities with existing NPDES permits for storm water discharges to a municipal storm sewer will generally be required to maintain these permits. EPA requests comments on whether storm water discharges associated with industrial activity from industries with promulgated effluent guidelines which discharge to municipal storm sewers should be required to obtain individual permits.

In order to aid municipalities in developing and implementing management programs, EPA is proposing that operators of storm water discharges associated with industrial activity which discharge to a large or medium municipal separate storm sewer system are not required to submit individual permit applications (or participate in a group application) provided:

- The operator of such a storm water discharge submits to the municipality responsible for the municipal separate storm sewer receiving the discharge the name of facility; the location of the discharge; and a certification that the discharge has been tested for the presence of non-storm water discharges;
- Such discharge is composed entirely of storm water;
- Such discharge is in compliance with applicable conditions of the NPDES permit issued for the discharge from the municipal separate storm sewer which receives the storm water discharge associated with industrial activity provided the discharger has been notified of such conditions; and
- Such discharge does not contain a hazardous substance in excess of reporting quantities established at 40 CFR 117.3 or 40 CFR 302.4.

The Agency specifically requests comments on requiring municipal permittees to develop controls to reduce pollutants in storm water discharges associated with industrial activity into municipal systems as an alternative to requiring individual permits (or issuing general permits) for storm water discharges associated with industrial activity.

3. Today's Proposal Regarding Storm Water Discharges Associated with Industrial Activity from Federal Facilities into Large and Medium Municipal Separate Storm Sewer Systems

EPA recognizes that storm water discharges associated with industrial activity from Federal facilities to municipal separate storm sewer systems may pose unique legal and administrative situations. In today's notice, the Agency favors proposing regulations which address storm water discharges from Federal facilities to municipal systems in the same manner as privately-owned storm water discharges to municipal storm sewers. That is, storm water discharges associated with industrial activity from Federal facilities to municipal storm sewers are generally covered by the permit issued for the municipal storm sewer system discharges and are not required to obtain an individual NPDES permit unless the Director of the NPDES program designates the discharge as a co-permittee with the municipality or requires an individual permit. However, the Agency specifically requests comments on applying this approach to Federal facilities, and whether Federal facilities which discharge storm water associated with industrial activity into municipal systems should be required to submit individual applications (or, where appropriate, participate in a group application), and obtain individual permits for such discharges.

4. Today's Proposal Regarding Storm Water Discharges Associated with Industrial Activity into Municipal Separate Storm Sewer Systems Serving a Population of Less than 100,000

Sections 402(p) (1) and (2) of the CWA provides that discharges from municipal separate storm sewer systems serving a population of less than 100,000 are not required to obtain a permit prior to October 1, 1992, unless designated on a case-by-case basis under section 402(p)(2)(E). Such discharges are to be included in the set of storm water discharges to be studied under section 402(p)(5) of the CWA and are subject to regulation under section 402(p)(6) of the Act. However, NPDES permits could be required under section 402(p)(2)(B) for storm water discharges associated with industrial activity which discharge into these municipal systems prior to October 1, 1992. EPA requests comments on whether industrial facilities discharging storm water to these systems should not be required to obtain a permit until after the completion of the studies mandated under section 402(p)(5) of the CWA. Evaluating these discharges under the studies mandated under section 402(p)(5) would provide EPA additional flexibility to evaluate procedures and methods to control these storm water discharges to the extent necessary to mitigate impacts on water quality and to determine whether the municipalities responsible for discharges from municipal separate storm sewer systems serving a population of less than 100,000 or the industrial facility generating the discharge to the municipal system should be responsible for obtaining a NPDES permit. Alternatively, operators of storm water discharges associated with industrial activity to municipal systems serving less than 100,000 would be required to submit permit applications (or participate in group applications) in accordance with the deadlines established for other storm water discharges associated with industrial activity that would be required to obtain a permit under today's proposal.

D. Storm Water Discharge Sampling

Storm water discharges are intermittent by their nature. Pollutant concentrations in storm water discharges will be highly variable. Not only will variability arise between given events, but the flow rate and pollutant concentrations of such discharges will vary with time during an event. This variability raises two technical problems: what is the best way to

characterize the discharge associated with a single storm event; and what is the best way to characterize the variabilty beween discharges of different events that may be caused by seasonal changes, changes in material management practices, and other factors.

The current regulations at 40 CFR 122.21(g)(7) require that applicants for storm water discharges submit quantitative data based on one grab sample taken every hour of the discharge for the first four hours of discharge. In today's notice, EPA is proposing to modify this requirement such that instead of collecting and analyzing four grab samples individually, applicants provide data as indicators of two sets of conditions; first flush pollutant concentrations and flow-weighted average storm event concentrations.

Data describing pollutants in the first flush (i.e., a grab sample taken during the first twenty minutes of the discharge) can often be used as a screen for illicit discharges and illegal dumping to the storm water because pollutants associated with such activities may be flushed out of the system during the initial portion of the discharge. In addition, first flush data is useful because much of the traditional structural technology used to control storm water discharges, including detention and retention devices, may only provide controls for the first flush of the discharge, with relatively little or no treatment for the remainder of the discharge. First flush data will give an indication of the potential usefulness of these techniques to reduce pollutants in storm water discharges. Also, first flush discharges may be primarily responsible for pollutant shocks to the ecosystem in receiving waters.

Studies such as NURP have shown that flow-weighted average concentrations of storm water discharges are useful for estimating pollutant loads and estimating pollutant loads and for evaluating certain concentration-based water quality impacts. The use of flow-weighted composite samples are also consistent with comments raised by various industry representatives during previous Agency rulemakings that continuous monitoring of discharges from storm events is necessary to adequately characterize such discharges.

In order to provide flexibility where it is not feasible to obtain a flow weighted composite sample, EPA is also proposing that applicants may, in lieu of submitting data based on a flow weighted composite, submit quantitive data from individual samples taken during a representative storm event.

EPA requests comment on the feasibility of the proposed modification of sampling procedures at § 122.21(g)(7) and the ability to characterize pollutants in storm water discharges with an average concentration and a first flush concentration compared to collecting and separately analyzing four grab samples. The Agency invites commenters to submit any data that can be used to compare the accuracy and the cost of the proposed changes relative to the exisiing regulations.

In the proposed regulation, the entire provision at 122.21(g)(7) has been presented to provide ease of review. Today's notice only requests comments on those portions of § 122.21(g)(7) that relate to sampling storm water discharges.

E. Storm Water Discharges Associated with Industrial Activity

1. Permit Applicability

a. Storm Water Discharges to Municipal Storm Sewers. As discussed in more detail in § VII.C of today's notice, EPA is proposing that, in general, the operator of a storm water discharge associated with industrial activity will not be required to individually obtain a permit if their discharge goes to a municipal separate storm sewer serving a population of 250,000 or more, or a population of 100,000 or more, but less than 250,000, but that the operators of these municipal separate storm sewer systems are primarily responsible for obtaining system-wide or area permits which cover storm water discharges associated with industrial activity which discharge into the municipal system. In addition, EPA is proposing that operators of storm discharges associated with industrial activity which discharge to municipal separate storm sewer systems serving a population of less than 100,000 are not required to obtain a permit prior to the completion of studies mandated under section 402(p)(5) of the CWA. In these cases, the Director may still designate such discharges for an individual permit or to be co-permittee.

b. Storm Water Discharges to Non-Municipal Conveyances. Today's notice proposes at § 122.26(a)(5) to require all operators of storm water discharges associated with industrial activity that discharge into a privately or Federally owned storm water conveyance (a storm water conveyance that is not a municipal separate storm sewer) to either be covered by an individual permit or a permit issued to the operator of the portion of the system that directly discharges to waters of the United States. This "either/or" approach, which is similar to the approach taken in the September 26, 1984 final rule, allows a non-municipal operator of a storm water conveyance to decline to assume responsibility for the non-municipal storm water discharges into the non-municipal conveyance.

EPA considers this approach to be appropriate because some of the permit applications requirements proposed in today's notice require the applicant to have access to information regarding the site where the storm water is generated. Operators of non-municipal systems will generally be in a poorer position to gain knowledge of pollutants in storm water discharges and to impose controls water discharges from other facilities than will municipal system operators. In addition, best management practices and other site-specific controls are often most appropriate for reducing pollutants in storm water discharges and operators of non-municipal separate storm sewers may not be able to institute such controls. Also, some non-municipal operators of storm water conveyances which receive storm water runoff from industrial facilities may not be industrial facilities themselves and therefore should generally be excluded from obtaining a permit prior to October 1, 1992, unless specifically designated.

EPA requests comments on the advantages and disadvantages of retaining the "either or" approach for non-municipal storm sewers. Alternatively, EPA could adopt an approach where the operator of the portion of the conveyance which discharges directly to waters of the United States is responsible for obtaining a permit which covers all discharges to the non-municipal storm sewer.

2. Scope of "Associated with Industrial Activitity"

The September 26, 1984 final regulation divided those discharges that met the regulatory definition of storm water point source into two groups. The term Group I storm water discharges was defined in an attempt to identify those storm water discharges which had a higher potential to contribute significantly to environmental impacts. Group I included those discharges that contained storm water from an industrial plant or plant associated areas. Other storm water discharges (such as those from parking lots and administrative buildings) located on lands used for industrial activity were classifed as Group II discharges. The regulations defined the term "plant

associated areas" by listing several examples of areas that would be associated with industrial activities. However, the resulting definition led to confusion among the regulated community regarding the distinctions between the Group I and Group II classifications.

When enacting section 405 of the WQA, Congress did not explicitly adopt EPA's regulatory classification of Group I and Group II discharges. Rather, Congress required EPA to develop permit application requirements for storm water "discharges associated with industrial activity" by no later than February 1, 1989. In light of the adoption of the term "associated with industrial activity" in the WQA, and the ongoing confusion surrounding the previous regulatory definition, EPA has eliminated the regulatory terms "Group I storm water discharge" and "Group II storm water discharge" pursuant to the Court remand and does not propose to revive it. In addition, EPA is proposing to define the term "storm water discharge associated with industrial activity" at § 122.26(b)(13) and to clarify the scope of the term.

In describing the scope of the term "associated with industrial activity", several members of Congress explained in the legislative history that the term applied if a discharge was "directly related to manufacturing, processing or raw materials storage areas at an industrial plant." (Vol. 132 Cong. Rec. H10932, H10936 (daily ed. October 15, 1986); Vol. 133 Cong. Rec. H176 (daily ed. January 8, 1987). EPA is proposing to clarify the regulatory definition of "associated with industrial activity" by adopting the language used in the legislative history and supplementing it with a description of various types of areas that are directly related to an industrial process (e.g., industrial plant yard, immediate access roads and rail lines, drainage ponds, material handling sites, sites used for the application or disposal of process waters, sites used for the storage and maintenance of material handling equipment, and sites that are presently or have been used in the past for residual treatment, storage or disposal). Today's proposal would clarify that the term applies to plant areas that are no longer used for such activities as well as areas that are currently being used for industrial processes.

The same comments in the legislative history cited above were careful to state that the term "associated with industrial activity" does not include storm water "discharges associated with parking lots and administrative and employee buildings". To accommodate this legislative intent, EPA is proposing that generally, segregated storm water discharges from these areas will not be required to obtain a permit prior to October 1, 1992. However, if a storm water discharge from a parking lot at an industrial facility is mixed with a storm water discharge associated with industrial activity, the combined discharge is subject to permit application requirements for storm water discharges associated with industrial activity.

Storm water discharges from parking lots and administrative buildings along with other discharges from industrial lands that do not meet the regulatory definition of "associated with industrial activity" and that are segregated from such discharges may be required to obtain a NPDES permit prior to October 1, 1992 under certain conditions. For example, large parking facilities, due to their impervious nature may generate large amounts of runoff which may contain significant amounts of oil and grease and heavy metals which may have adverse impacts on receiving waters. The Administrator or NPDES State has the authority under section 402(p)(2)(e) of the amended CWA to require a permit prior to October 1, 1992 by designating storm water discharges such as those from parking lots that are significant contributors of pollutants or contribute to a water quality standard violation. EPA will address storm water discharges from lands used for industrial activity which do not meet the regulatory definition of "associated with industrial activity" in the section 402(p)(5) study to determine the appropriate manner to regulate such discharges.

EPA requests comments on clarifying the types of facilities that involve industrial activities and generate storm water. EPA prefers basing the clarification, in part, on the use of Standard Industrial Classification (SIC) codes, which have been suggested in comments to prior storm water rulemakings because they are commonly used and accepted and would provide definitions of facilities involved in industrial activity.

EPA requests comments on the scope of the definition (types of facilities addressed) as well as the clarity of regulation. EPA has identified the following types of facilities which it requests comments on with respect to suitability for inclusion in the regulatory definition as facilities which generate and discharge storm water associated with industrial activity:

(i) Facilities subject to effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards;

(ii) Facilities classified as Standard Industrial Classification 20 through 39 (manufacturing industry);

(iii) Facilities classified as Standard Industrial Classification 10 through 14 (mineral industry) including active or inactive mining operations and oil and gas exploration, production, processing, or treatment operations, or transmission facility that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations;

(iv) Hazardous waste treatment, storage, or disposal facilities that are operating under interim status or a permit under Subtitle C or RCRA;

(v) Landfills, land application sites, and open dumps that receive industrial wastes and that are subject to regulation under Subtitle D of RCRA;

(vi) Facilities involved in significant recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards;

(vii) Steam electric power generating facilities, including coal handling sites, and onsite and offsite ancillary transformer storage areas;

(viii) Transportation facilities classified as Standard Industrial Classification 40 through 45, and 47 which have vehicle maintenance shops, material handling facilities, equipment cleaning operations and airport deicing operations. Only those facilities or portions of facilities that are either involved in vehicle maintenance, loading, storage or unloading activities, or equipment cleaning operations or which are subject to another subparagraph under this paragraph are associated with industrial activity;

(ix) POTW lands used for land application treatment technologies, sludge disposal, handling or processing areas, and chemical handling and storage areas;

(x) Facilities classified as Standard Industrial Classification 15 and 16 (General building contractors and heavy construction contractors) including clearing, grading and excavation activities except operations that result in the disturbance of less than 1 acre total land area which are not part of a larger common plan of development or sale; or that are designed to serve single family residential projects, including duplexes, triplexes or quadruplexes, that result in the disturbance of less than 5

acre total land areas which are not part of a larger common plan of development or sale.

(xi) Automotive repair shops classified as Standard Industrial Classification 751 or 753 including general automotive repair shops, paint shops, and body repair shops, and miscellaneous repair shops classified as Standard Industrial Classification 769;

(xii) Gasoline service stations classified as Standard Industrial Code 5541;

(xiii) Lands other than POTW lands (offsite facilities) used for sludge management;

(xiv) Lumber and building materials retail facilities classified as Standard Industrial Classification 5211;

(xv) Landfills, land application sites, and open dumps that do not receive industrial wastes and that are subject to regulation under Subtitle D of RCRA.

(xvi) Facilities classified as Standard Industrial Classification 46 (pipelines, except natural gas), and 492 (gas production and distribution); and

(xvii) Major electrical powerline corridors.

Of the facilities listed above, EPA prefers that storm water discharges from facilities listed in paragraphs (xi) through (xvii) not be classified as storm water discharges associated with industrial activity, but rather be part of the class of discharges for which storm water permits are not required prior to October 1, 1992, unless designated under section 402(p)(2)(E) of the CWA. EPA prefers to study under section 402(p)(5) of the CWA storm water discharges from these and other facilities for appropriate regulation under section 402(p)(6). In addition, storm water discharges from certain facilities listed above that are not associated with industrial activity (such as storm water discharges from parking lots which are not used for material management), and which are segregated from storm water discharges will be studied under section 402(p)(5).

EPA is requesting comments on how the regulatory definition of "associated with industrial activity" can be further clarified and on clarifying the types of facilities that are engaged in industrial activities. Some activities at certain facilities will be listed in more than one category. For example, an inorganic chemical facility with an SIC code of 28 may have an on-site unit which is subject to Subtitle C of RCRA. Although the majority of Subtitle C facilities will be addressed by other classifications listed above, listing Subtitle C facilities separately provides additional clarification. EPA requests comments on further classifications that would serve to clarify the proposed definition of storm water discharge associated with industrial activity (for example, are distinct categories for treatment, storage or disposal facilities for source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq. or sites listed on the National Priority List (other than sites that are Fund-financed pursuant to CERCLA section 106 which are exempt from permitting (see 40 CFR 300.65(f))) necessary to clarify that these are facilities covered by the definition?) Today's proposal is intended to address Department of Defense and Department of Energy facilities which are engaged in the industrial activities listed above, even though SIC codes do not apply to these facilities. EPA requests comments on whether the proposed regulatory language should be clarified with respect to these facilities.

EPA also requests comment on limiting the definition of storm water discharge associated with industrial activity to those discharges which do not discharge into municipal separate storm sewers. This limitation may be useful in clarifying which discharges are required to submit permit applications and obtain an NPDES permit.

If EPA promulgates a final regulatory definition of "storm water discharge associated with industrial activity" that does not include certain facilities that are listed in today's proposal, then those facilities would be studied under Section 402(p)(5) of the CWA for appropriate regulation after October 1, 1992 under Section 402(p)(6) of the Act. Comments which oppose inclusion of proposed facilities to the regulatory definition of "storm water discharge associated with industrial activity" should address the nature and extent of pollutants in the storm water discharge as well as the appropriate procedures and methods to control pollutants in storm water discharges from such facilities to the extent necessary to mitigate impacts on water quality. For facilities which EPA requests comments on in today's notice, but that the Agency does not include in the final definition of "storm water discharge associated with industrial activity", the information received during the rulemaking, along with other information, will constitute a portion of the Section 402(p)(5) study. In such a case, the Agency, where appropriate, will consider today's request for comments as a proposal for regulation under Section 402(p)(6) and establish appropriate regulations (such as delaying the date of permit application submittal) based on today's proposal.

Today's proposed permit application requirements for storm water discharges associated with industrial activity at §122.26(c)(1)(i) include special requirements for storm water discharges originating from mining operations, oil or gas operations (§ 122.26(c)(1)(ii), and from the construction operations listed above (§ 122.26(c)(1)(iii)). These requirements are discussed in more detail in § VII.E.7 and § VII.E.9 of today's notice.

3. Individual Application Requirements

Today's notice addresses whether the requirements for permit applications for discharges which contain storm water associated with industrial activity should be modified from the requirements associated with the Form 1 and Form 2C permit applications. The proposed modifications to the permit application requirements would apply to both storm water discharges associated with industrial activity that are required to submit a permit application (§ VII.E.1 of the preamble discusses permit applicability) and to other discharges from non-municipal separate storm sewers which have been designated by the Administrator or NPDES State as contributing to a violation of a water quality standard or as a significant contributor of pollutants to waters of the United States.

As discussed earlier in today's notice, the September 26, 1984 regulation required operators of Group I storm water discharges to submit the full NPDES Form 1 and Form 2C permit applications. In response to post-regulation comments received on that rule, EPA proposed new permit application requirements (March 7, 1985, (50 FR 9362) and August 12, 1985, (50 FR 32548)) which would have decreased the analytical sampling requirements of the Form 2C and provided procedures for group applications. The passage of the WQA has given the EPA additional time to consider the appropriate permit application requirements for storm water discharges.

Today's notice proposes to modify the permit application requirements found at 122.21 by providing special requirements for storm water discharges associated with industrial activity at § 122.26(c). In response to comments on earlier rulemakings addressing storm water discharges, EPA is proposing to shift the emphasis of the permit application requirements for storm water discharges associated with industrial activity from the existing requirements for collection of quantitative data (sampling data) in Form 2C towards collection of less

quantitative data supplemented by additional information needed for evaluation of the nature of the storm waters discharges. The permit application requirements proposed for storm waters discharges reduce the amount of quantitative data required in the permit application and exempt discharges which contain entirely storm water (and contain no other discharge that, without the storm water component, would require a NPDES permit), from certain reporting requirements of the Form 2C. The proposed modifications also would exempt applicants for discharges which contain entirely storm water from several non-quantitative information collection provisions currently required in the Form 2C. The proposed modifications would rely more on descriptive information for assessing impacts of the storm water discharge.

A proposed application form, Form 2F, for storm water discharges has been included with today's notice. A complete permit application for discharges composed entirely of storm water, will be comprised of Form 2F and Form 1. Operators of discharges which are composed of both storm water and non-storm water will submit a Form 1, an entire Form 2C (or Form 2D) and Form 2F when applying. In this case, the applicant will provide quantitative data describing the discharge during a storm event in Form 2F and quantitative data describing the discharge during non-storm events in Form 2C. Non-quantitative information reported in the Form 2C will not have to be reported again in the Form 2F.

Under today's proposal, Form 2F for storm water discharges associated with industrial activity would not require the submittal of all the quantitative information required in Form 2C, but would require that quantitative data be submitted for:

- Any pollutant limited in an effluent guideline for its subcategory;
- Any pollutant listed in the facility's NPDES permit for its process wastewater;
- Oil and grease, TOC, TSS, COD, pH, BOD_5, total phosphorus, total nitrogen; and
- Any information on the discharge required under 40 CFR 122.21(g)(7) (iii) and (iv).

In order to characterize the discharge(s) sampled, the applicant would be required to submit information regarding the storm event(s) that generated the sampled discharge, including the date(s) the sample was taken, flow measurements or estimates of the duration of the storm event(s) sampled, rainfall measurements or estimates from the storm event(s) which generated the sampled runoff, and the duration between the storm event sampled and the end of the previous storm event. Information regarding the storm event(s) sampled is necessary to evaluate if the discharge(s) sampled was generally representative of other discharges expected to occur during storm events, and to characterize the amount and nature of runoff discharges from the site.

Today's notice proposes that the applicant test for oil and grease, COD, pH, BOD_5, TSS, total nitrogen and total phosphorus. Oil and grease and TSS are a common component of storm water and can have serious impacts on receiving waters. Oxygen demand (COD and BOD_5) will help the permitting authority evaluate the oxygen depletion potential of the discharge. BOD_5 is the most commonly used indicator of oxygen demand. COD is considered a more inclusive indicator of oxygen demand, especially where metals interfere with the BOD_5 test. The pH will provide the permitting authority with important information on the potential availability of metals to the receiving flora, fauna and sediment. Total nitrogen and total phosphorus are measures of nutrients which can impact water quality.

The proposed Form 2F requirements regarding submission of quantitative data are intended to allow tailoring the sampling and reporting of pollutants to site-specific parameters that potentially have an impact on the quality of the storm water discharge. In addition to the conventional pollutants listed above, today's notice proposes to require applicants to, when appropriate, sample other pollutants based on a consideration of site-specific factors. These pollutants account for pollutants associated with materials used for production and maintenance, finished products, waste products and non-process materials such as fertilizers and pesticides associated with the facility. Today's notice proposes that the applicant sample for any pollutant limited in an effluent guideline applicable to the facility or limitation in the facility's NPDES permit. These pollutants will generally be associated with the facility's manufacturing process or wastes. Other process and non-process-related pollutants, will be addressed by complying with the requirements of 40 CFR 122.21(g)(7) (iii) and (iv).

Section 122.21(g)(7)(iii) requires an applicant to indicate whether the applicant knows or has reason to believe that any pollutant listed in Table IV (conventional and nonconventional pollutants) of Appendix D to 40 CFR Part 122 are discharged. If such pollutant is either directly limited or indirectly limited by the expressed terms of the permit through limitations on an indicator, the applicant must report quantitative data. For pollutants that are not limited in an effluent limitations guideline, the applicant must either report quantitative data or describe the reasons the pollutant is expected to be discharged. With regard to pollutants listed in Table II (organic pollutants) or Table III (metals, cyanide and total phenol) of Appendix D, the applicant must indicate whether he knows or has reason to believe such pollutants are discharged from each outfall and, if they are discharged in amounts greater than 10 parts per billion (ppbs), the applicant must report quantitative data. An applicant qualifying as a small business under 40 CFR 122.21(g)(8), (e.g., coal mines with a probable total annual production of less than 100,000 tons per year or, for all other applicants, gross total annual sales averaging less than $100,000 per year (in second quarter 1980 dollars)), is not required to analyze for pollutants listed in Table II of Appendix D (the organic toxic pollutants).

Section 122.21(g)(7)(iv) requires an applicant to indicate whether it knows or has reason to believe that any pollutant in Table V of Appendix D to 40 CFR Part 122 (certain hazardous substances) is discharged. For every pollutant expected to be discharged, the applicant must briefly describe the reasons the pollutant is expected to be discharged, and report any existing quantitative data it has for the pollutant.

When collecting data for permit applications, applicants may make use of 40 CFR 122.21(g)(7), which provides that "when an applicant has two or more outfalls with substantially identical effluents, the Director may allow the applicant to test only one outfall and report that the quantitative data also apply to the substantially identical outfalls." Where the facility has availed itself of this provision, an explanation of why the untested outfalls are "substantially identical" to tested outfalls must be provided in the application. Where the amount of flow associated with the outfalls with substantially identical effluent differs, measurements or estimates of the total flow of each of the outfalls must be provided.

The outfalls are to be sampled in accordance with the requirements of 40 CFR 122.21(g)(7), which are discussed in this section and section VII.D of today's

notice. EPA is proposing that the facility must sample during "representative storm events." EPA request comments on the following definition of a representative storm event. A representative storm event is one that is typical for the area in terms of duration and severity. The event must be greater than 0.1 inch and must be at least 96 hours from previously measurable (greater than 0.1 inch rainfall) storm event. In general, variance of the parameters such as the duration of the event and the total rainfall of the event should not exceed 50 percent from the average rainfall event in that area. EPA also requests comments on addressing snow melt events under this definition.

Today's proposal would also modify the Form 2C requirements by exempting applicants from the requirements at § 122.21(g)(2) (line drawings), (g)(4) (intermittent flows), (g)(7) (i), (ii), and (v) (various sampling requirements to characterize discharges) if the discharge covered by the application is composed entirely of storm water. Permit applications for discharges containing storm water associated with industrial activity would require applicants to provide other non-quantitative information which will aid permit writers to identify which storm water discharges are associated with industrial activity and to characterize the nature of the discharge.

Under existing permit application regulations, 40 CFR 122.21(f)(7) requires all permit applicants to submit as part of Form 1 a topographic map extending one mile beyond the property boundaries of the source, depicting the facility and each intake and discharge structure; each hazardous waste treatment, storage, or disposal facility; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in the map area in public records or otherwise known to the applicant within one-quarter mile of the facility property boundary. (See 47 *FR* 15604, April 8, 1982). However, the information provided under § 122.21(f)(7) is generally not sufficient by itself for evaluating the nature of storm water discharges associated with industrial activity.

EPA is proposing that application requirements for storm water discharges associated with industrial activity include a drainage map of the site in addition to the topographic map required with the Form 1. A drainage map can provide important site specific information for evaluating the nature of the storm water discharge than the existing requirements, which require a larger map with only general information. The volume of a storm water discharge and the pollutants associated with it will depend on the configuration and activities occurring at the industrial site. The Agency requests comments under what conditions, if any, it would appropriate to submit a site drainage map in lieu of the Form 1 topographic map.

EPA is also proposing that a narrative description be submitted to accompany the drainage map. The proposed narrative will provide a description of on-site features, including existing structures (buildings which cover materials and other material covers, dikes, diversion ditches, etc.) and non-structural controls (employee training, visual inspections, preventive maintenance, and housekeeping measures) that are used to prevent or minimize the potential for release of toxic and hazardous pollutants; a description of significant materials that are currently or in the past have been treated, stored or disposed outside; and the method of treatment, storage or disposal used. The narrative will also include a description of activities at materials loading and unloading areas; the location, manner and frequency in which pesticides, herbicides, soil conditioners and fertilizers are applied; a description of the soil; the impact of storm water runoff on production areas; and a description of the areas which are predominantly responsible for first flush runoff.

Today's notice is also proposing that permit applicants for storm water discharges associated with industrial activity certify that all of the outfalls covered in the permit application have been tested for non-storm water discharges which are not covered by a NPDES permit. Section 405 of the WQA added section 402(p)(3)(B)(ii) to the CWA to require that permits for municipal separate storm sewers effectively prohibit non-storm water discharges to the storm sewer system. As discussed in § VII.F.7.b of today's notice, untreated non-storm water discharges to storm sewers can crate severe, wide-spread contamination problems and removing such discharges presents opportunities for dramatic improvements in the quality of such discharges. Although section 402(p)(3)(B)(ii) specifically addresses municipal separate storm sewers, EPA believes that illicit non-storm water discharges are as likely to be mixed with storm water at a facility that discharges directly to the waters of the United States as it is at a facility that discharges to a municipal storm sewer. Accordingly, EPA feels that is appropriate to consider potential non-storm water discharges in permit applications for storm water discharges associated with industrial activity. The certification requirement would not apply to outfalls where storm water is intentionally mixed with process waste water streams which are already identified in and covered by a permit.

EPA is proposing to provide regulatory language that would provide that appropriate tests for non-storm water discharges include smoke tests, fluorometric dye tests and analysis of accurate schematics. EPA requests comment on whether analysis of storm water discharges associated with industrial activity for various parameters (such as fecal coliform, fecal streptococcus, volatile organic carbon (VOC), residual chlorine and detergents) would be an appropriate method for satisfying the certification requirement. EPA requests comments on other technologies and the use of visual observations of flow during dry weather conditions which may be appropriate for this certification requirement. The Agency also requests comments on when a variance from this provision may be appropriate.

Today's proposal would also require applicants to submit known information regarding the history of significant spills at the facility. Such information is necessary to aid in the determination of which drainage areas are likely to generate storm water discharges associated with industrial activity, evaluate pollutants of concern and to develop appropriate permit conditions. Significant spills at a facility would generally include releases of oil or hazardous substances in excess of reportable quantities under section 311 of the Clean Water Act (see 40 CFR 110.20 and 40 CFR 117.21) or section 102 of CERCLA (see 40 CFR 302.4).

Like the regular NPDES permit applications, individual applications are submitted to the State if it is approved to administer the NPDES program, otherwise to the appropriate EPA Regional Office.

In the August 12, 1985 notice, EPA requested comments on the appropriateness of allowing for a waiver from the requirement to submit quantitative data if the applicant can demonstrate that the information is unnecessary for permit issuance. Although overall the commenters supported such a waiver, EPA is not proposing this type of a waiver in this notice. A waiver is inappropriate since EPA is proposing to reduce the number of pollutants that must be sampled and

analyzed from previous regulations. The proposed requirements for quantitative data are limited to pollutants that are appropriate for given site-specific operations, thereby making a waiver unnecessary.

Although the concept of a waiver is attractive because of the perceived potential reduction in burdens for applicants, the Agency believes that because the storm water discharge testing reequirements have already been streamlined, a waiver would not in practice provide significant reductions in burden for either applicants or permitting authorities. Requirements to provide and verify data demonstrating that a waiver is appropriate for a storm water discharge may prove to be more of a burden to the applicant and the permitting authorities. Establishing such a waiver procedure would be administratively complex and time-consuming for both the Agency and the applicants, without any justifiable benefit. Therefore, today's proposal does not include a waiver provision.

4. Group Applications

For two major reasons, EPA continues to support the group application approach. First, group applications will reduce the burden on the regulated community associated with submitting permit applications by requiring the submission of quantitative data from only selected members of the group. Second, the group application process will reduce the burden on the permit issuing authority by forming an appropriate basis and providing adequate information for issuing general permits. Where general permits are not appropriate or cannot be issued, a group application can be used to develop model individual permits, which can significantly reduce the burden of issuing individual permits.

Today's notice refines and clarifies the proposal for the group application approach set forth in the August 12, 1985 Reopener Notice. The proposal would establish a regulatory procedure whereby a representative entity, such as a trade association, may submit a group application to the Office of Water Enforcement and Permits (OWEP) at EPA headquarters, in which quantitative data from certain representative members of a group of industrial facilities is supplied. Information received in the group application will be used by OWEP to develop models for individual permits or general permits. These model permits are not issued permits, but rather they will be used by EPA Regions and the NPDES States to issue individual or general permits for participating facilities in the State. In developing such permits, the Region or NPDES States will, where necessary, adapt the model permits to take into account the hydrological conditions and receiving water quality in their area.

a. Facilities Covered. Today's proposal differs from the August 12 proposal in that the group application is submitted for only the facilities specifically listed in the application, and not necessarily for an entire industry. This is quite different from the August 12 proposal, which proposed that the application was to be submitted for, and be representative of, the industry as a whole, and any facility fitting within the industry subcategory did not have to submit an individual application. Based on comments to the August 12, 1985 proposal, the Agency agrees that submitting an application for an entire industry is simply unworkable. Under the August 12 proprosal, it was likely that there would have been only one application for an entire industry, and the one submission would have had to be representative of the industry as a whole. Under today's proposal, a group application will only cover facilities listed in the application, and not the industry as a whole. The facilities in the group application selected to do sampling must be representative of the group, not of the industry. This approach eliminates the problem expressed by some trade associations that because they represented only a portion of the industry, they would be unable to assure representativeness.

Facilities that would be sufficiently similar to members of a group application, but that are not identified in the group application must, if they are required to obtain a permit, submit individual NPDES permit applications in accordance with the deadlines that will be established in the final rule. Storm water discharges that are sufficiently similar to those covered in a general permit that commence discharging after an applicable general permit has been issued must refer to the provisions of that general permit to determine if they are eligible for coverage and the procedures established in the general permit for obtaining coverage. Facilities that have already been issued an individual permit for their storm water discharge would generally not be eligible for participation in a group application.

b. Scope of Group Applications. In the August 12, 1985 notice, EPA proposed that the groups would be based on EPA subcategories for process waste water (as defined by 40 CFR Subchapter N). Over half of the comments which addressed this issue supported the use of subcategories over categories. However, several commenters to the August 12, 1985 proposal noted that this was too restrictive, and would deny the group application option to those industries not defined by one of the Agency's subcategories or to facilities with integrated operations, where processes could fall within several subcategories.

EPA subcategories are functional classifications, breaking down facilities into groups, for purposes of setting effluent limitations guidelines. Thus, they are tighter than the EPA categorical designations and narrow the wide differences among processes within a broad category. The use of EPA subcategories will save time for both applicants and permitting authorities in determining whether a particular group is appropriate for a group application.

EPA recognizes that the subcategory designations may not always be available. Also, there are situations where processes that are subject to different subcategories are combined. The Agency agrees that the group application option should be flexible enough to allow groups to be created where facilities are integrated or overlap into other subcategories. For these reasons, today's proposal does not limit the submission to EPA subcategories alone, but rather allows groups to be formed where facilities are similar enough to be appropriate for general permit coverage.

In determining whether a group is appropriate for general permit coverage, EPA intends that the group applicant use the factors set forth in 40 CFR 122.28(a)(2)(ii), the current general permit regulation, as a guide. If facilities all involve the same or similar types of operations, discharge the same types of wastes, have the same effluent limitation and same or similar monitoring requirements, where applicable, they would probably be appropriate for a group application. The criteria currently used for defining group application coverage are reasonable for defining the scope of a group application in view of the logical assumption that similar types of industrial facilities are likely to have some similar pollutants in their storm water runoff.

C. Group Application Requirements. The group application requirements proposed today will consist of a Part 1 and a Part 2 application which are to be submitted on different dates. In Part 1 of the application, applicants are to provide information to demonstrate that participants in the group application are sufficiently similar to be included in one group and preliminarily identify

representative facilities which will be responsible for collecting and submitting quantitative data on behalf of the entire group. In Part 2 of the application, representative facilities approved by EPA will be responsible for collecting and submitting quantitative data on behalf of the entire group.

Part 1 of the group application will consist of two components, Part 1A and Part 1B. Part 1A of the application will be used to provide an overview of the group. The second component of Part 1, Part 1B, will provide site-specific information which will be used to evaluate whether individual facilities are appropriate for the group application and whether the representative facilities selected in Part 1A will indeed provide representative quantitative data.

Part 1A of the Group Application. Part 1A will consist of four elements: (1) The name and location of all facilities participating in the group application; (2) a narrative description summarizing the major industrial activities of the participants in the group application and why the participants are appropriate for a group application; (3) a list of the significant materials stored outside by members of the group, and a description of the primary materials management practices, if any; and (4) a commitment to provide quantitative sampling data from representative facilities in Part 2 of the permit application, and a list of the facilities which will provide quantitative information.

EPA is proposing that in Part 1A of the group application, the names of facilities participating in the group application be divided into nine subdivisions based on the facility location relative to nine precipitation zones [see attached map, Appendix E]. These nine divisions will enable the data in the permit application to be more easily analyzed and patterns observed on the basis of hydrology and other regional factors. The need to identify precipitation zones arises because the amount of rainfall is likely to have a significant impact on the quality of the receiving water. According to a recent EPA study (Methodology for Analysis of Detention Basins for Control of Urban Runoff Quality; Office of Water, Nonpoint Source Branch, Sept. 1986) the United States can be divided into nine general precipitation zones. These zones are characterized by differences in precipitation volume, precipitation intensity, precipitation duration, and precipitation intervals. Industrial facilities that seek general permits via the group application option may show significantly different loading rates as a result of these regional precipitation differences. As an example, precipitation in Seattle, Washington, located in Zone 7, approaches the mean annual storm intensity of .024 inches/hour with a mean annual storm duration of 20 hours for that Zone. In contrast, precipitation in Atlanta, Georgia, located in Zone 3 approaches the mean annual storm intensity of .102 inches/hour and a mean storm duration 6.2 hours for that Zone. Atlanta, receives on the average four times more precipitation per hour with storms lasting one-third as long. As a result of these differences, if identical facilities within a group application were situated in each of these areas, their storm water discharges would likely exhibit different pollutant characteristics.

As mentioned above, the group application must provide a list of significant materials stored outside by members of the group. Such a list shall include, for example, raw materials (fuels, storage piles); intermediate materials, such as solvents and detergents; finished materials such as metallic products; and waste products such as ashes, slag and sludge. EPA is proposing that materials are significant, for the purpose of preparing a group application, if they are periodically used or stored in quantities that, if released and mixed with storm water, could result in impacts to receiving waters. As an example, materials in quantities sufficient to be stored in a 55-gallon drum generally would be regarded as significant. However, some materials are sufficiently toxic that smaller quantities would be considered significant, such as certain pesticides and solvents. Therefore, any materials conistently used that are known to be highly toxic in small quantities would also be regarded as significant materials.

With regard to the materials identified, the applicant is to discuss the materials management practices employed by members of the group. For example, the applicant should identify whether such materials are commonly covered, contained, or enclosed, whether storm water runoff from materials storage areas is collected in settling ponds prior to discharge, or diverted away from such areas to minimize the likelihood of contamination. Also, the approximate percentge of facilities in the group with no practices in place to minimize materials stored outside is to be identified.

The Agency considers that the processes and materials used at a particular facility may have a bearing on the quality of the storm water. Thus, if there are different processes and materials used by members of the group, the application is to contain data from facilities utilizing the different processes and materials. Accordingly, if the group members are all very similar in their processes and materials, then such distinctions would not be necessary.

The fourth element of Part 1A of the group application is a commitment to submit quantitative data from ten percent of the facilities listed. EPA is proposing that there must be a minimum of ten and a maximum of one hundred facilities within a group that submit data. There must be a sufficient number of facilities submitting data for any patterns and trends to be detectable. However, it is felt that one hundred facilities would in most cases be sufficient to characterize the nature of the runoff. If not, EPA has the authority to request more sampling under section 308 of the CWA.

Because storm water loading rates may differ significantly as a result of regional precipitation differences, it is necessary that each precipitation zone containing representatives of a group application have some of those representatives take samples. Thus, today's proposal would require that Part 2 of the group application contain sampling data from at least two facilities within each precipitation zone in which two or more members of group are located (the application need contain sampling data for only one facility in a precipitation zone if that facility is the only member of the group located in that zone). Several commenters to the August 12, 1985 proposal suggested, and the Agency agrees, that the amount of rainfall will affect the degree of impact a storm water discharge may have on the receiving stream. In addition, facilities selected to do the sampling should be representative of the group as a whole in terms of those characteristics identifying the group which were described in the narrative, i.e., number and range of facilities, types of processes used, and any other relevant factors. If there is some variation in the processes used by the group (40 percent of the group of food processors are canners and 60 percent are canners and freezers, for example), the different processes are to be represented. Also, samples are to be provided from facilities utilizing the materials management practices identified, including those facilities which use no materials management practices. The representation of these different factors, to the extent feasible, is to be roughly equivalent to their proportion in the group.

Part 1B of the Group Application. Under today's proposal, Part 1B of the group application is intended to provide sufficient site specific information to allow EPA to evaluate whether all members of a group are sufficiently similar as to be appropriate for coverage in a group application or general permit, and to ensure that the facilities selected to collect quantitative data are representative of the group.

Each facility in the group application would be required to submit the non-quantitative information that is required in an individual application for storm water discharges associated with industrial activity: a drainage map, a narrative description of material management practices and control measures to control the discharge of pollutants in storm water discharges, and the history of significant spills at the facility.

EPA is requiring this information because the Agency is persuaded by comments on previous proposals suggesting that site-specific practices are likely to have a significant impact on the quality of the runoff. In addition, comparing the results of different control practices will assist in selecting management practices for inclusion in NPDES permits.

In addition, individual members of the group application will be required to certify that their facility has tested all outfalls that should contain entirely storm water discharges and which drain storm water associated with industrial activity for the presence of nonstorm water discharges which are not covered with a NPDES permit. Illicit discharges are by nature site-specific, and hence a representative analysis involving testing of a fraction of the facilities in the group is not appropriate for a group application.

Submittal of Part 1 of the Group Application. Each facility in the group can submit the information required in Part 1B on Form 1 and Form 2F. The entire Form 2F does not need to be completed—only that nonquantitative information for individual applicants described in today's proposal is required. Facilities participating in a group application will not be required to submit quantitative data describing their storm water discharges with Part 1 of the group application.

The Form 1 and Form 2F must be signed by an authorized corporate official of the facility submitting data, in accordance with the requirements of 40 CFR 122.22. This official will make the required certifications that the document was prepared under his supervision, and based on inquiry of the persons responsible for gathering the information, the information is, to the best of their knowledge and belief, true, accurate and complete.

These forms should be collected prior to submission to EPA and submitted at one time along with the information required under Part 1A to the EPA Office of Water Enforcement and Permits (OWEP) in Washington, DC. OWEP will review the Part 1 application for completeness (40 CFR 122.21(e), completeness of NPDES permit applications) and for compliance with the permit application requirements. Factors likely to contribute pollutants to storm water discharges, such as specific material management practices, will be considered in approving the facilities chosen for representative sampling of the group. Then a judgment will be made as to whether the described group, as a whole, is appropriate for a single group application. If a submission is deficient, EPA will either: reject the group application, limit the facilities participating in the group application, or request that corrections be made to the group application prior to a final decision on acceptability. If the application is rejected or if EPA determines that some facilities must be excluded from the group application, facilities no longer covered by the group application would be required to submit additional information such that complete individual applications can be evaluated.

Part 2 of the Group Application. Under today's proposal, groups for which the Part 1 permit application have been accepted will submit Part 2 of the group application within 18 months of the promulgation of a final rule. Part 2 of the application will consist of quantitative data from the representative facilities in the group that were selected in Part 1 of the application. Each facility submitting representative data in Part 2 will submit quantitative sampling data on Form 2F. The individual facilities themselves, in filling out permit applications for their facilities, certify that the data provided are true, accurate, and complete. Individual applications submitted in Part 2 of the group application will contain sampling from each outfall, except that individual applicants may avail themselves of 40 CFR 122.21(g)(7) for multiple outfalls at the same site with substantially identical effluents, as discussed under the proposed requirements for individual applications. These forms are to be submitted to the entity representing the group, which will compile them.

As with Part 1, Part 2 of the Group Application would be submitted to the Permits Division, Office of Water Enforcement and Permits, in Washington, DC. Submission of a Part 2 application which meets Part 1 commitments and the other standard NPDES regulatory requirements satisfies the application requirements for the facilities listed on Part 1. If the information is incomplete, or simply is found to be an inadequate basis for establishing general permit limits, EPA has the authority under section 308 of the Clean Water Act to require that more information be submitted, which may include sampling from facilities that were part of the group application but did not provide data with the initial submission. If the group application is used by a Region or NPDES State to issue a general permit, the general permit should specify procedures for additional coverage under the permit.

If a Part 2 is unacceptable or insufficient, EPA has the option to request additional information or to require that the facilities that participated in the group application submit complete individual applications (e.g., facilities that have submitted Form 1 with the group application would be required to submit Form 2F, and facilities which have submitted complete Form 1 and Form 2F information in the group application would generally not have to submit additional information).

Once the group applications are reviewed and accepted, EPA will use the information to establish draft permit terms and conditions for models for individual and general permits. The information will also allow States and EPA regional offices to estimate the pollutant loads from storm water dischargers associated with the group to assist in identifying groups for which individual permits may be more appropriate. NPDES-approved States and EPA regional offices will continue to be the permit-issuing authority for storm water discharges. The NPDES-approved States accepting the group application approach and the EPA Regions may then take the model permits and adapt them for their particular area, making adjustments for local water quality standards and other localized characteristics, and making determinations as to the need for an individual storm water permit where general permit coverage is felt to be inappropriate. Permits would be proposed by the Region or NPDES-approved State in accordance with current regulations for public comment before becoming final. In NPDES States without general permit authority, or where an individual permit is deemed appropriate, the model permit can serve

as the basis for issuing individual permits.

The group application is an NPDES permit application just like any other, and as such would be handled through normal permitting procedures, subject to the regulatory provisions applicable to permit issuance. Incomplete or otherwise inadequate submissions would be handled in the same manner as any other permit application. The permitting authority would retain the right to require submission of Form 1, Form 2C and Form 2F from any individual discharger it designates.

5. Group Application: Applicability in NPDES States

The relationship between EPA and the States that are authorized to administer the NPDES program (there are 39 such States, called "approved States") that will implement the storm water program is one of the most complicated aspects of today's proposal. Approved States must have requirements that are at least as stringent as the federal program; they may be more stringent if they choose. Authority to issue general permits is opptional with NPDES States. If they choose to issue general permits they may include such authority in their NPDES program and, upon approval of the program by EPA, may then issue general permits. There are currently thirteen approved States that have authority to issue general permits: Arkansas, Colorado, Illinois, Kentucky, Minnesota, Missouri, Montana, New Jersey, Oregon, Rhode Island, Utah, West Virginia and Wisconsin.

Because today's group application option is a relaxation of existing NPDES permit application requirements, the State is free to adopt this option, but is not required to. If the State chooses to adopt the group application and it does not have general permit authority, the group application can be used to issue individual permits, However, EPA recommends that such States consider obtaining general permit authority as a means to efficiently issue permits for storm water discharges. These States should contact the Office of Water Enforcement and Permits at EPA Headquarters (see the **FOR FURTHER INFORMATION** section at the beginning of this notice), as soon as possible.

If an approved State chooses not to adopt the group application, facilities that discharge storm water associated with industrial activity that are located in that State must submit individual applications to the respective State permitting authority. For facilities that discharge storm water associated with industrial activity which are named in a group application, the Director may require an individual facility to submit an individual application where it determines that general permit coverage would be inappropriate for the particular facility.

6. Group Application: Procedural Concerns

Comments received on the August 12, 1985 group application proposal included comments from an environmental group that the proposed group application process and procedures violated federal law. This commenter claimed that EPA was abrogating its responsibility by allowing a trade association to design a data collection plan in lieu of completing an NPDES application form designed by the Agency, thus violating the Federal Advisory Committee Act. The commenter stated that EPA would be improperly influenced by special interests if trade associations were able to design their own storm water data gathering plans. The commenter further asserted that any decisions by EPA on the content of specific group applications would be rulemakings and thus subject to the provisions of the Administrative Procedure Act.

EPA disagrees with the comment that the group application violates the Federal Advisory Committee Act (FACA). FACA governs only those groups that are established or "utilized" by an agency for the purpose of obtaining "advice" or "recommendations". The group application option does not solicit or involve any "advice" or "recommendations". It simply allows submission of data by certain members of a group in accordance with specific regulatory criteria for determining which facilities are "representative" of a group. As such, the group application is merely a submission in accordance and in compliance with specific regulatory requirements and does not contain discretionary uncircumscribed "advice" or "recommendations" as to which facilities are representative of a group.

Thus, the determination of which facilities should submit testing data in accordance with regulatory criteria is little different from many other regulatory requirements where an applicant must submit information in accordance with certain criteria. For example, under 40 CFR 122.21 all outfalls must be tested except where two or more have "substantially identical" effluents. Similarly, quantitative data for certain pollutants is to be provided where the applicant knows or "has reason to believe" such pollutants are discharged. Both of these provisions allow the applicant to exercise discretion in making certain judgments but such action is circumscribed by regulatory standards. EPA further has authority to require these facilities to submit individual applications. In none of these instances are "recommendations" or "advice" involved. EPA also notes that it is questionable whether, in providing for group applications, it is "soliciting" advice or recommendations from groups of that such groups are being "utilized" by the Agency as a "preferred source" of advice. See 48 FR 19324 (April 28, 1983). Furthermore, this data collection effort may be supplemented by EPA if, after review of the data, EPA determines additional data is necessary for permit issuance. Other information gathering may act as a check on the group applications received.

EPA also does not agree with commenters' claims that the group application scheme represents an impermissible delegation of the Administrator's function in violation of the CWA regarding data gathering. The Administrator has the broadest discretion in determining what information is needed for permit development as well as the manner in which such information will be collected. The CWA does not require every discharger required to obtain a permit to file an application. Nor does the CWA require that the Administrator obtain data on which a permit is to be based through a formal application process (see 40 CFR 122.21). For years "applications" have not been required from dischargers covered by general permits. EPA currently obtains much information beyond that provided in applications pursuant to section 308 of the CWA. This is especially true with respect to general permit and effluent limitations guidelines development. The group application option is simply another means of data gathering. The Administrator may always collect more data should he determine it necessary upon review of a groups' data submission. And, he may obtain such additional data by whatever means permissible under the Statue that he deems appropriate. Thus, it can hardly be said that by this initial data gathering effort the Administrator has delegated his data gathering responsibilities. In addition, since groups are required to select "representative" facilities, etc., in accordance with specific regulatory requirements established by the Administrator and because EPA will scrutinize Part 1 of the group applications and either accept or reject the group as appropriate for a group application, no impermissible delegation

has occurred. EPA will make an independent determination of the acceptability of a group application in view of the information required to be submitted by the group applicant, other information available to EPA (such as information on industrial subcategories obtained in developing effluent limitations guidelines as well as individual storm water applications received as a result of today's rule) and any further information EPA may request to supplement Part 1 pursuant to section 308 of the CWA. Moreover, any concerns that a general permit may be based upon biased data can be dealt with in the public permit issuance process.

Finally, EPA also does not agree that the group application option violates the Administrative Procedures Act. Again, the group application scheme is simply a data gathering device. EPA could very well have determined to gather data informally via specific requests pursuant to section 308 of the CWA. In fact, general permit and effluent limitations guideline development proceed along these lines. It would make little sense if the latter informal data gathering process were somehow illegal simply because it is set forth in a rule that allows applicants some relief upon certain showings. In this respect, several of EPA's existing regulations similarly allow an applicant to be relieved from certain data submission requirements upon appropriate demonstrations. For example, testing for certain pollutants and or certain outfalls may be waived under certain circumstances. Most importantly, the operative action of concern that impacts on the public is actual general permit issuance based upon data obtained. As previously stated, ample opportunity for public participation is provided in the permit issuance proceeding.

7. Permit Applicability and Applications for Oil, Gas and Mining Operations

Section 401 of the WQA amended section 402(1)(2) of the CWA to prohibit the Director of the NPDES program from requiring permits for uncontaminated storm water discharges from oil and gas operations and from mining operations. In the near future, EPA intends to issue a notice that will codify this provision into 40 CFR 122.26(a)(2). Today's notice proposes to modify 40 CFR 122.26(a)(2) to clarify the scope of the provision.

As discussed in more detail earlier in today's notice, on March 18, 1976 (41 FR 11307), EPA promulgated permit application requirements for storm water discharges that were located in an urbanized area or that were from lands used for industrial or commercial activities that were contaminated by contact with materials or contaminated soils. The approach to regulating storm water discharges was modified on September 24, 1984 (49 *FR* 37998) which deleted the term "contaminated" and relied instead on geographic criteria which resulted in the same coverage (e.g., discharges meeting the geographic criteria were expected to meet the contaminated criteria).

Congress adopted a similar geographic criterion to generally define the scope of the first phases of the storm water program when enacting Section 405 of the WQA by requiring EPA to develop permit applications for storm water discharges associated with industrial activity and for discharges from municipal separate storm sewer systems serving populations of 250,000 or more or serving populations of 100,000 or more, but less than 250,000.

However, Section 401 of the WQA, amended Section 402(1)(2) of the CWA to provide that the Director shall not require a NPDES permit for storm water runoff from mining or oil and gas operations if the runoff is not contaminated by contact with, or does not come into contact with any overburden, raw material, intermediate product, finished product, byproduct or waste product located on the site. This provision relies on both a geographic criterion and a contamination criterion to define permit applicability.

The legislative history accompanying Section 402(1)(2) clarified that Congress intended that the factors considered in determining if storm water discharges from oil and gas operations are contaminated are different from the factors considered for storm water discharges from mining operations. Congress intended that for these discharges, if the storm water is "not contaminated by contact with such materials, as determined by the Administrator, permits are also not required. With respect to oil or grease or hazardous substances, the determination of whether stormwater is 'contaminated by contact with' such materials, as established by the Administrator, shall take into consideration whether these materials are present in such stormwater runoff in excess of reportable quantities under section 311 of the Clean Water Act or Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, or in the case of mining operations, above natural background levels." (Vol. 132 Cong. Rec. H10574 (daily ed. October 15, 1986) Conference Report).

a. Gas and Oil Operations. EPA is proposing that contaminated storm water from oil and gas operations includes, but is not limited to, runoff that contains a hazardous substance in excess of reporting quantities (RQs) established at 40 CFR 117.3 or 40 CFR 302.4; or contains oil in excess of the reporting quantity established at 40 CFR 110.3.

In order to implement the storm water permit requirements for oil and gas operations, the Agency is proposing to rely primarily on notification requirements for releases in excess of RQs established under the CWA and CERCLA to trigger the submittal of permit applications for storm water discharges from oil and gas operations. EPA is proposing that oil and gas operations which do not or have not in the past discharged storm water which contains an RQ of a hazardous substance or oil are not required to submit a permit application for such storm water discharges unless the Director requests a permit application on a case-by-base basis.

Oil and gas operations that have been required to notify the release of a RQ of either oil or a hazardous substance via a storm water route will be required to submit a permit application, including quantitative sampling data, in accordance with proposed § 122.26(c)(1)(iii). Oil and gas operations which have had a release via a storm water route in excess of an RQ will be required to obtain a NPDES permit even if the quantitative data submitted in the application does not indicate that the storm water discharge sampled contained a hazardous substance or oil in excess of a reportable quantity.

The proposal also provides the Director authority to require, on a case-by-case basis, operators of oil and gas operations which have certified that its discharge is not contaminated to submit a permit application. In addition, the Director may require an operator of an oil and gas operation to submit information regarding the storm water discharge under Section 308 of the CWA.

Based on a consideration of pollutants in a storm water discharge from an oil or gas facility, the Director may determine that the discharge is contaminated even though the discharge does not contain oil or a hazardous substance in amounts which exceeds an RQ. Also, RQs only serve as one guide in allowing the Director to determine if the discharge is contaminated. RQs have not been developed for some pollutants, such as suspended solids and other various indicator parameters (BOD, COD, pH,

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etc.), which are not classified as oil or a hazardous substance.

b. Use of Reportable Quantities to Determine if a Storm Water Discharge from an Oil or Gas Operation Is Contaminated. Section 311(b)(5) of the CWA requires reporting of certain discharges of oil or a hazardous substance into navigable waters (see 44 FR 50766 (August 29, 1979)). Section 304(b)(4) of the Act requires that quantities of oil and hazardous substances that require notification be determined at quantities which may be harmful to the public health or welfare of the United States, including but not limited to fish, shellfish, wildlife, and public or private property, shorelines and beaches. Facilities which discharge oil or a hazardous substance in quantities equal to or in excess of an RQ, with certain exceptions, are required to notify the National Response Center (NRC).

Section 102 of CERCLA extended the reporting requirement for releases equal to or exceeding an RQ of a hazardous substance by adding chemicals to the list of hazardous substances, and by extending the reporting requirement (with certain exceptions) to any releases to the environment, not just those to navigable waters. Releases of oil are not addressed by the reporting requirements under CERCLA.

Pursuant to Section 311 of the CWA, EPA determined reportable quantities for discharges by correlating aquatic animal toxicity ranges with 5 reporting quantities, i.e. 1-, 10-, 100-, 1000-, and 5000-pounds per 24 hour period levels. Reportable quantity adjustments made under CERCLA relied on a different methodology. The strategy for adjusting reportable quantities begins with an evaluation of the intrinsic physical, chemical, and toxicological properties of each designated hazardous substance. The intrinsic properties examined, called "primary criteria", are aquatic toxicity, mammalian toxicity (oral, dermal, and inhalation), ignitability, reactivity, and chronic toxicity. In addition, substances that were identified as potential carcinogens have been evaluated for their relative activity as potential carcinogens. Each intrinsic property is ranked on a five-tier scale, associating a specific range of values on each scale with a particular reportable quantity value. After the primary criteria reportable quantities are assigned, the hazardous substances are further evaluated for their susceptibility to certain extrinsic degradation processes called secondary criteria. Secondary criteria consider whether a substance degrades relatively rapidly to a less harmful compound, and can be used to raise the primary criteria reportable quantity one level.

Also pursuant to § 311, EPA has developed a reportable quantity for oil, and associated reporting requirements at 40 CFR 110. These requirements, known as the oil sheen regulation, defines the RQ for oil to be the amount of oil that violates applicable water quality standards or causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or causes a sludge or emulsion to be deposited.

Reportable quantities developed under the CWA and CERCLA were not developed as effluent guideline limitations which establish allowable limits for pollutant discharges to surface waters. Rather, a major purpose of the notification requirements is to alert government officials to releases of hazardous substances that may require rapid response to protect public health and welfare and the environment. Notification based on reportable quantities serves as a trigger for informing the government of a release so that the need for response can be evaluated and any necessary response undertaken in a timely fashion. The reportable quantities do not themselves represent any determination that releases of a particular quantity are actually harmful to public health or welfare or the environment.

In relying in today's proposal on the reporting requirements associated with releases in excess of RQs for oil or hazardous substances to trigger the submittal of permit applications for oil and gas operations, the Agency believes that the use of the reporting requirements for oil will be particularly useful. The Agency believes that the release of oil to a storm water discharge in amounts that cause an oil sheen is a good indicator of the potential for water quality impacts from storm water releases from oil and gas operations. In addition, given the extremely high number of such operations (the Agency estimates that there are over 750,000 oil wells alone in the United States), relying on the oil sheen test to determine if storm water discharges from such sites are "contaminated" is more appropriate than sampling. The detection of a sheen does not require sophisticated instrumentation since a sheen is easily perceived by visual observation.

EPA requests comments on the use of reportable quantities for determining whether storm water from mining operations or oil and gas operations is contaminated. EPA is particularly concerned with the use of RQs to define contamination for storm water discharges from oil and gas operations.

c. Mining Operations. Today's notice proposes to clarify that contaminated storm water runoff from mining operations includes runoff which contains pollutants above natural background levels. When evaluating whether a storm water discharge from a mining operation contains contaminates above background levels, EPA will consider both contaminate concentrations and flowrates to estimate total pollutant loads. Concentration values alone are not sufficient to indicate whether a discharge contains contaminates above background levels. Development of land generally causes increased runoff volumes. Thus, even where concentrations of pollutants remain the same as during predevelopment, an increase in runoff volumes will result in increases in pollutant loadings.

EPA is proposing that operators of mining operations will be required to submit permit applications for storm water discharges from active and inactive mining areas (except for areas of coal mining operations meeting the definition of a reclamation area under 40 CFR 434.11(1)) and haul roads where storm water comes into contact with any overburden, raw material, intermediate products, finished product, byproduct or waste products. EPA is proposing at § 122.26(b)(12)(iii) to define storm water discharges from these areas of a mining operation as storm water discharges associated with industrial activity. Accordingly, the permit application requirements proposed at § 122.26(c)(1) will apply to these dischargers. Data in the permit application, and if necessary, other data required by the Director under Section 308 of the CWA, will be used to determine if the discharge contains contaminants above background levels, and therefore a permit is necessary. Mining operations with storm water discharges that are known to be contaminated may participate in appropriate group applications which comply with proposed § 122.26(c)(2).

8. Application Requirements for Construction Activities

As discussed above, EPA is proposing that storm water discharges from facilities classified as Standard Industrial Codes 15 and 16 (General building contractors and heavy construction contractors) (except construction operations that result in the disturbance of less than one acre total land area which are not part of a larger common plan of development or sale; or

operations that are for single family residential projects, including duplexes, triplexes, or quadruplexes, that result in the disturbance of less than five acre total land areas which are not part of a larger common plan of development or sale), be included in the regulatory definition of storm water discharges associated with industrial activity.

The Agency believes that storm water permits are appropriate for the construction industry for two reasons. First, runoff generated while construction activities are occurring have potential for serious water quality impacts. Where construction activities are intensive, the localized impacts of water quality may be severe because of high unit loads of pollutants, primarily sediments. Construction sites can also generate other pollutants such as phosphorus, nitrogen and nutrients from fertilizer, pesticides, petroleum products, construction chemicals and solid wastes. These materials can be toxic to aquatic organisms and degrade water for drinking and water-contact recreation. Sediment runoff rates from construction sites are typically 10 to 20 times that of agricultural lands, with runoff rates as high as 100 times that of agricultural lands, and 1,000 to 2,000 times that of forest lands. Even small construction sites may have a significant negative impact on water quality in localized areas. Over a short period of time, construction sites can contribute more sediment to streams than was previously deposited over several decades.

Techniques to control pollutants in storm water discharges from construction are well developed and understood. A primary control technique is good site planning. A combination of nonstructural and structural best management practices are typically used on construction sites. Relatively inexpensive nonstructural vegetative controls, such as seeding and mulching, are effective control techniques. In some cases, more expensive structural controls may be necessary, such as detention basins or diversions. The most efficient controls result when a comprehensive storm water management system is in place.

The second major reason for addressing storm water discharges from the construction industry at this time is that studies such as NURP indicate that it is much more cost effective to develop measures to reduce pollutants during new development. Many of these controls, which can take the form of grading patterns as well as other controls, generally remain in place after the construction activities are completed.

a. Permit Application Requirements. In today's notice, EPA is proposing distinct permit application requirements for these construction activities, at 122.26(c)(1)(ii). Under the proposal, such facilities will be required to provide a narrative description of:

- The nature of the construction activity;
- The total area of the site and the area of the site that is expected to undergo excavation during the life of the permit;
- Proposed measures, including best management practices, to control pollutants in storm water discharges during construction, including a description of applicable Federal requirements and State or local erosion and sediment control requirements;
- Proposed measures to control pollutants in storm water discharges that will occur after construction operations have been completed, including a description of applicable State or local requirements;
- An estimate of the runoff coefficient (fraction of total rainfall that will appear as runoff) of the site and the increase in impervious area after the construction addressed in the permit application is completed, a description of the nature of fill material and existing data describing the soil or the quality of the discharge; and
- The name of the receiving water.

EPA is proposing that permit application requirements for the covered construction activities will not include the submission of quantitative data. EPA believes that the changing nature of construction activities at the site to be covered by the permit application requirements generally would not be adequately described by quantitative data.

The Agency specifically requests comments on today's proposed permit application requirements for construction facilities which discharge storm water associated with industrial activity, on appropriate measures to reduce pollutants in construction site runoff, and on appropriate application deadlines.

The application requirements proposed in today's notice are designed to provide flexibility in developing controls to reduce pollutants in storm water discharges from construction sites. The proposed application requirements recognize that many State and local governments have implemented erosion and sediment control programs. The permit application requirements requiring a description of these programs are intended to ensure consistency between NPDES permit requirements and other State and local controls.

b. Administrative Burdens. Ideally, model individual permits and general permits will be issued for storm water discharges for construction activities subject to NPDES requirements to minimize administrative delays associated with permit issuance. EPA requests comment on administrative burdens and delays associated with issuing NPDES permits for storm water discharges from certain construction activities. In addressing the administrative burdens of regulation, commenters should consider the proposed limitation on the definition of storm water discharge associated with industrial activity and the proposed regulatory scheme for storm water discharges associated with industrial activity which discharge to municipal separate storm sewer systems.

Proposed § 122.26(b)(12)(x) limits the definition of "storm water discharge associated with industrial activity" by exempting from the definition construction operations that result in the disturbance of less than one acre total land area which are not part of the larger common plan of development or sale; or operations that are for single family residential projects, including duplexes, triplexes, or quadruplexes, that result in the disturbance of less than five acre total land areas which are not part of a larger common plan of development or sale. In considering the appropriate scope of the definition of storm water discharge associated with industrial activity as it relates to construction activities, EPA recognizes that a wide variety of factors can affect the water quality impacts associated with construction site runoff, including receiving waters, the size of the area disturbed, soil conditions, seasonal rainfall patterns, the slope of area disturbed, and the intensity of construction activities.

EPA favors the one acre/five acre limit primarily because of administrative concerns. EPA recognizes that State and local sediment and erosion controls may address construction activities disturbing less than one acre or five acres for residential development. The one acre/five acre limit proposed in today's notice is not intended to supersede more stringent State or local sediment and erosion controls. For construction facilities that are not included in the definition of storm water discharge associated with industrial activity, EPA will consider the appropriate procedures and methods to

reduce pollutants in construction site runoff under the studies authorized by section 402(p)(5) of the CWA. EPA will also consider under section 402(p)(5) appropriate procedures and methods during post-construction for maintaining structural controls developed pursuant to NPDES permits issued for storm water discharges associated with industrial activity from construction sites.

EPA favors distinguishing between single family residential development and other commercial development because other commercial development is more likely to occur in more densely developed areas. Also, other commercial development provides a more complete opportunity to develop controls that remain in place after the construction activity is completed, as continued maintenance, after the permit has expired, is more feasible.

EPA requests comments on the use of no limit or other limits such as 2, 10 or 20 acres. In addition, limitations could be based on or modified by other factors. Time limitations which consider the length of the construction activity or the season during which the activity occurs may provide a more workable administrative system while still addressing the major water quality impacts associated with construction activities. Other factors, such as steep slopes at the site, which affect the nature of the runoff, may be appropriate for defining special cases which would be addressed in this rulemaking. EPA also requests comments on other factors, such as the intensity of the development within the watershed, which affect the water quality impacts in receiving waters. Such site specific factors may be difficult to define in federal regulations. For example, a definition based on relatively easily interpreted criteria such as Census designated urban areas may not provide adequate protection for rapidly developing areas which are located outside the urban area. EPA requests comments on other factors which can be used to develop a limit on storm water discharges from construction sites which are classified as storm water discharges associated with industrial activity.

Proposed 122.26(a) would specify that storm water discharges, including construction site runoff, that discharge to municipal storm sewers are not required to obtain individual or group permits unless specifically designated by the Director. Under today's proposal, municipal permittees will be responsible for developing a proposed management plan to control pollutants in runoff from construction sites which discharge to large and medium municipal separate storm sewer systems (see § VII.G.8.d of the preamble). The Agency believes that the majority of construction sites do not discharge storm water directly to waters of the United States, but rather discharge to a municipal storm sewer or manage storm water on-site. For example, construction site runoff from a new subdivision which discharges to the drainage system of an existing road or a road that is being built by a developer for a municipality is, under this proposal, discharging to a municipal storm sewer.

9. Application Requirements for New Sources and New Discharges

Today's proposed permit application requirements provide that new sources and new discharges which discharge storm water include estimates of pollutants or parameters for which other storm water discharges are required to submit data. Under the proposal, operators of such discharges are required to provide the quantitative data which is required for other similar existing storm water discharges within two years after the commencement of the discharge, unless the data has already been reported under the monitoring requirements of the NPDES permit for the discharge.

F. Municipal Separate Storm Sewer Systems

1. Municipal Separate Storm Sewers

Today's notice proposes to define "municipal separate storm sewer" at § 122.26(b)(8) as any conveyance or system of conveyances that is owned or operated by a State or local government entity and is used for collecting and conveying storm water which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

It is important to note that the proposed permit application requirements for discharges from municipal separate storm sewers do not apply to discharges from combined sewers that are designed as both a sanitary sewer and a storm sewer. Discharges from combined sewer systems are not regulated under this proposed rule.

The Agency also wants to clarify that streams, wetlands and other water bodies that are waters of the United States are not storm sewers for the purpose of this rule. This use of the term "storm sewer" differs from the way that the term has often been used in the context of flood control, where natural streams and other water bodies are sometimes considered storm sewers. Activities such as stream channelization, and stream bed stabilization, which occur in waters of the United States would generally not be subject to permits issued under § 402 of the CWA. However, such activities occurring within waters of the United States may be subject to dredge and fill permits required under section 404 of the CWA by the Corps of Engineers. Applicants should consult the regulatory definition of "waters of the United States" at 40 CFR 122.2 to distinguish between storm sewers and waters of the United States.

Some municipalities have maintained in previous comments that difficulties may arise with determining owners or operators of municipal storm sewers as clear title to the storm sewer may not exist. Often, where the ownership of such conveyances is in question, the storm sewer is not maintained and hence an "operator" criteria is not particularly useful. EPA requests comments on different wording for the definition of municipal separate storm sewer to clarify responsibility under the NPDES permit system. Do legal classifications such as storm sewers that are not private (e.g., public, district or joint district sewers) provide a clearer definition than an owner or operator criteria? Does the definition need to be clarified by explicitly stating that municipal streets and roads with drainage systems (curb and gutter, ditches, etc.) are part of the municipal storm sewer system, and the owners or operators of such roads are responsible for such discharges? To what extent should the owner or operator concept apply to municipal governments with land-use authority over lands which contribute storm water runoff to the municipal storm sewer system, and how should this responsibility be clarified?

2. Effective Prohibition on Non-Storm Water Discharges

Section 402(p)(3)(B)(ii) of the amended CWA requires that permits for discharges from municipal storm sewers shall include a requirement to effectively prohibit non-storm water discharges into the storm sewers.

EPA does not interpret the effective prohibition on non-storm water discharges to municipal separate storm sewers to apply to discharges that are not composed entirely of storm water, as long as such discharge has been issued a separate NPDES permit. Rather, an "effective prohibition" would require separate NPDES permits for non-storm water discharges to municipal storm sewers. In many cases in the past, applicants for NPDES permits for process wastewaters and other non-

storm water discharges have been granted approval to discharge into municipal separate storm sewers, provided that the permit conditions for the discharge are met at the point where the discharge enters into the separate storm sewer. Permits for such discharges must meet applicable technology-based and water-quality based requirements of Sections 402 and 301 of the CWA. If the permit for a non-storm water discharge to a municipal separate storm sewer contains water-quality based limitations, then such limitations should generally be based on meeting applicable water quality standards at the boundary of a State mixing zone (for States with mixing zones) located in a water of the United States. Water-quality based limitations would also generally be established during dry weather conditions, when the discharge would not be mixed with storm water in the municipal separate storm sewer (unless receiving water conditions during wet weather dictate more stringent water-quality based limitations).

The legislative history to Section 405 of the WQA supports EPA's interpretation of the non-storm water prohibition. Senator Durenberger stated that the prohibition on non-storm water discharges into municipal separate storm sewers provision applies to non-storm water discharges to municipal separate storm sewers that are currently illegal under the Act (Vol. 133 Cong. Rec. S752 (daily ed. January 14, 1987)). By stating that the provision applies to discharges that are currently illegal, it is clear that Senator Durenberger intended that the effective prohibition apply to non-storm water discharges without NPDES permits, which have been illegal under the CWA since 1972.

The Agency believes that the effective prohibition does not apply to discharges with separate NPDES permits because there would be no additional treatment or environmental benefit from constructing a new sewer line discharging into the same receiving water. If the discharge was not directed into a new discharge line, it might be forced into a Publicly Owned Treatment Works (POTW). However, certain discharges, such as high volumes of non-contact cooling water, may decrease the overall treatment efficiency of the POTW without notable treatment benefits for the cooling water. Overall, the quality of the receiving water is not likely to be improved by installing new discharge lines.

All options will be considered when an applicant applies for a NPDES permit for a non-storm water discharge to a municipal separate storm sewer. In some cases, permits will be denied for discharges to storm sewers that are causing water quality problems in receiving waters. However, not all discharges present such problems, and in these cases EPA or State permit writers may allow such discharges to municipal separate storm sewers within appropriate permit limits.

Today's notice proposes two permit application requirements that are designed to begin to implement the effective prohibition. The first proposed requirement, discussed in § VII.G.6.a, addresses a screening analysis which is intended to provide sufficient information to develop priorities for a program to detect and remove illicit discharges. The second provision, discussed in § VII.G.7.b, requires municipal applicants to develop a recommended site-specific management plan to detect and remove illicit discharges (or ensure they are covered by an NPDES permit) and to control improper disposal to municipal separate storm sewer systems.

Conveyances which continue to accept other "non-storm water" discharges (e.g., discharges without an NPDES permit) do not meet the definition of municipal separate storm sewer, and are not subject to section 402(p)(3)(B) of the CWA unless the non-storm water discharges are issued separate NPDES permits. Instead, conveyances which continue to accept non-storm water discharges which have not been issued separate NPDES permits are subject to section 301 and 402 of the CWA. For example, combined sewers which convey storm water and sanitary sewage are not separate storm sewers and must comply with permit application requirements at 40 CFR 122.21 as well as other regulatory criteria for combined sewers.

3. Site-Specific Storm Water Quality Management Programs for Municipal Systems

Today's notice proposes fundamental changes to EPA's approach to control the discharge of pollutants from municipal separate storm sewers. Prior to the enactment of the WQA, NPDES permits for such discharges were required to meet all applicable provisions of section 402 and section 301 of the CWA. The WQA amended this requirement by adding section 402(p)(3)(iii) to the CWA which mandates that permits for discharges from municipal separate storm sewers shall require controls to reduce the discharge of pollutants to the maximum extent practicable (MEP), including management practices, control techniques and systems, design and engineering methods, and such other provisions as the Director determines appropriate for the control of such pollutants.

When enacting this provision, Congress was aware of the difficulties in regulating discharges from municipal separate storm sewers solely through traditional end-of-pipe treatment and intended for EPA and NPDES States to develop permit requirements that were much broader in nature than requirements which are traditionally found in NPDES permits for industrial process discharges or POTWs. As Senator Stafford explained, municipal storm sewer system "permits will not necessarily be like industrial discharge permits. Often, an end-of-the-pipe treatment technology is not appropriate for this type of discharge. As an EPA official explained in a meeting of the conferees:

> These are not permits in the normal sense we expect them to be. These are actual programs. These are permits that go far beyond the normal permits we would issue for an industry because they in effect are programs for stormwater management that we would be writing into these permits." (Vol. 132 Cong. Rec. S16425 (daily ed. Oct. 16, 1986))

A shift towards comprehensive storm water quality management programs to reduce the discharge of pollutants from municipal separate storm sewer systems is appropriate for a number of reasons. First, discharges from municipal storm sewers are highly intermittent, and are usually characterized by very high flow rates occurring over relatively short time intervals. For this reason, municipal storm sewers are usually designed with an extremely high number of outfalls within a given municipality, to reduce potential flooding. Traditional end-of-pipe controls are limited by material management problems that arise with high volume, intermittent flows occurring at a large number of outfalls.

Second, the nature and extent of pollutants in discharges from municipal systems will depend on the activities occurring on the lands which contribute runoff to the system. Municipal separate storm sewers tend to discharge runoff drained from lands used for a wide variety of activities. Given the material management problems associated with end-of-pipe controls, management programs that are directed at pollutant sources are often more practicable than relying solely on end-of-pipe controls.

In past rulemakings, much of the critcism of the concept of subjecting discharges from municipal separate storm sewers to the NPDES permit

program focused on the perception that the rigid regulatory program applied to industrial process waters and effluents from public sewage treatment plants was not appropriate for the site-specific nature of the sources which are responsible for the discharge of pollutants from municipal storm sewers.

The water quality impacts of discharges from municipal separate storm sewer systems depends on a wide range of factors including: the magnitude and duration of rainfall events, the time period between events, soil conditions, the fraction of land that is impervious to rainfall, land use activities, the presence of illicit connections, and the ratio of the storm water discharge to receiving water flow. In enacting Section 405 of the WQA, Congress recognized that permit requirements for municipal separate storm sewer systems should be developed in a flexible manner to allow site-specific permit conditions to reflect the wide range of impacts that can be associated with these discharges. The legislative history accompanying the provision explained that "[p]ermits for discharges from municipal separate stormwater systems * * * must include a requirement to effectively prohibit non-stormwater discharges into storm sewers and controls to reduce the discharge of pollutants to the maximum extent practicable, * * * These controls may be different in different permits. All types of controls listed in subsection [(p)(3)(C)] are not required to be incorporated into each permit" (Vol. 132 Cong. Rec. H10576 (daily ed. October 15, 1986) Conference Report). Consistent with the intent of Congress, EPA intends to develop permit application requirements that are sufficiently flexible to allow the development of site-specific permit conditions.

4. Large and Medium Municipal Storm Sewer Systems

Earlier regulatory efforts addressing NPDES permit requirements for storm water discharges required permits for discharges from municipal separate storm sewers located in urbanized areas that were designated by the Census Bureau. The Census Bureau defines urbanized areas to provide a description of the separation of urbanized and rural population and housing in the vicinity of large cities. A designated urbanized area consists of a central city or cities and surrounding closely settled territory or "urban fringe". Urbanized areas comprise an incorporated place and adjacent densely settled surrounding area that together have a minimum population of 50,000. However, for a number of reasons, the NPDES permit program for municipal separate storm sewers was not successfully implemented.

During the reauthorization of the CWA, Congress intervened by reaffirming its intent to establish a permit program for municipal separate storm sewers and establishing phased deadlines for its implementation. The amended CWA establishes priorities for EPA to develop permit application requirements and issue permits for discharges from three classes of municipal separate storm sewer systems. The WQA requires that NPDES permits be issued for discharges from large municipal separate storm sewer systems (systems serving a population of more than 250,000) by no later than February 4, 1991. Permits for discharges from medium municipal separate storm sewer systems (systems serving a population of more than 100,000, but less than 250,000) must be issued by February 4, 1993. After October 1, 1992, the permit requirements of the CWA are restored for all other discharges from municipal separate storm sewers.

The priorities established in the Act are based on the size of the population served by the system because, in general, discharges from municipal separate storm sewers located in municipalities with higher populations are thought to present a higher potential for contributing to adverse water quality impacts. NURP and other studies have verified that the event mean concentration of pollutants in urban runoff from residential and commercial areas remains relatively constant from one area to another, indicating that pollutant loads from urban runoff strongly depend on the total area of developed land, which in turn is related to population.

The term "municipal separate storm sewer system" is not defined by the Act. By not defining the term, Congress intended to provide EPA discretion to define the scope of municipal systems consistent with the objectives of developing site-specific management programs in permits to reduce pollutants in discharges from municipal separate storm sewer systems.

In evaluating options for defining large and medium municipal separate storm sewer systems, EPA will consider:

- The inter-jurisdiction complexities associated with municipal governments;
- The fact that many municipal storm water management programs have traditionally focused on water quantity concerns, and have not evaluated water quality impacts of system discharges or developed measures to reduce pollutants in such discharges;
- The advantages of developing system-wide storm water management programs for municipal systems;
- The geographic basis necessary for planning of comprehensive management programs to reduce pollutants in discharges from municipal separate storm sewers to the maximum extent practicable;
- The geographic basis necessary to provide flexibility to target controls on areas where water quality impacts associated with discharges from municipal systems are the greatest and to provide an opportunity to develop cost-effective controls;
- Need to establish a reasonable number of permits for municipal systems during the initial phases of program development that will provide an adequate basis for a storm water quality management program for over 13,000 municipalities after the October 1, 1992 general prohibition on storm water permits expires; and
- Congressional intent to allow the development of jurisdiction-wide, comprehensive storm water management programs with priorities given to the most heavily populated areas of the country.

a. Geographic Basis for Developing Storm Water Quality Management Programs for Developed Areas. Municipal storm sewer systems are installed to provide drainage for developed lands. In larger urbanized areas, extensive development continues beyond the boundaries of individual incorporated cities and towns. The concentration of many pollutants in discharges from municipal separate storm sewers are often low relative to many industrial process and POTW discharges. However, where a widespread area supports a high population, the cumulative impact of pollution loads associated with discharges from many municipal separate storm sewers can have significant water quality impacts. Where water quality impacts are associated with discharges from municipal storm sewer systems, the opportunity to develop appropriate controls must be related to the pollution source.

Most larger urbanized areas in the country are comprised of one or more core cities surrounded by urbanized areas outside of the city boundaries. Often, the population which resides outside of the core cities greatly exceeds the population which resides within the core cities' boundaries. Generally, the core areas have experienced development earlier than surrounding areas, with most new development occurring outside of the boundaries of

the core cities. For urbanized areas which follow this model, it may often be practicable to emphasize different aspects of a comprehensive storm water quality management program to reduce pollutants in discharges from separate storm sewers in different parts of the urbanized area.

Problems associated with illicit discharges of non-storm water to municipal separate storm sewers are generally expected to be more severe in areas which have undergone extensive development prior to the enactment and implementation of ordinances and other controls which prohibit illicit discharges to separate storm sewers. In these areas, identification and removal of illicit discharges provides opportunities for dramatic improvements in the quality of discharges from separate storm sewers.

In heavily developed areas, the opportunities for municipalities to implement some types of controls to reduce pollutants in municipal separate storm sewer discharges may be limited by the scarcity of land for controls, the high cost of retrofitting and institutional constraints. Areas of new development offer municipalities a more practicable opportunity to reduce pollutants in storm water discharges for a number of reasons. First, land is more readily available for structural controls such as detention and retention devices, which when incorporated into the design of a developing area can often offer multipurpose amenities to the development and may raise the value of the development. Second, other controls such as grass swales and grading patterns can be more easily implemented during the initial phases of development. Also, programs such as those in Florida and Maryland have focused on controls on new development because the storm water program can be administratively coordinated with other administrative procedures associated with new development such as subdivision, grading or building approvals.

Ideally, storm water quality management controls should be planned, developed, and coordinated on a watershed basis. This is true because pollutants in discharges from municipal storm sewer systems can come from diffuse sources over a wide area and a comprehensive pollutant control program is often needed to adequately protect receiving water quality. This geographical approach to water quality management has been identified as a key element to success in reducing pollutant discharges associated with urban runoff. Also, watershed planning allows priorities to be evaluated as part of a comprehensive assessment of all pollutant sources (all point and non-point sources) to the receiving water and the physical nature of the receiving water. Finally, many storm water pollution controls also control peak flow rates. These measures to control water quality should be coordinated with water quantity control measures. For example, retention basins which discharge into the lower portions of a watershed may create larger peak flows in small or medium-sized rivers and streams by delaying discharges in the lower portion of the watershed to coincide with increased flows caused by runoff in the upper portions of the watershed. The increased peak flows may cause flooding problems or accelerate flow velocities which can accelerate stream-bank and stream-bed erosion. In this manner, situations where controls which affect the rate of flow have adverse impacts on downstream water quality can be avoided.

Unfortunately, several administrative burdens are associated with defining, for the purpose of implementing the WQA, municipal storm sewer systems on a watershed basis. First, it is difficult to accurately estimate the population served by a given watershed. Second, watersheds do not follow political boundaries, thereby creating administrative difficulties in developing basin-wide control programs. Finally, it is difficult to establish an objective definition for the appropriate size of watershed basins, as smaller streams combine to form larger ones. The EPA requests comments on the use of watershed boundaries to define large and medium municipal separate storm sewer systems. Although the Agency does not prefer this option for large and medium systems, the Agency does favor incorporating watershed planning concepts and controls into the permit application requirements proposed in today's notice, and ultimately into permits for municipal separate storm sewer systems. As discussed in more detail later in today's notice, the permit application requirements proposed in today's notice encourage that, where practicable, management plans be developed which are consistent with the nature of the watershed. EPA requests comments on adapting the permit application requirements discussed in today's notice to accommodate the development of management programs based on a watershed basis.

b. Municipal Governments. A wide range of municipal entities may have primary responsibility for municipal storm sewers, including cities, towns, counties, flood control districts, and State Departments of Transportation. These municipalities perform a wide variety of other functions and are delegated a wide variety of legal authority by the State in which they are located. The potential role of various municipalities in reducing pollutants in discharges from municipal separate storm sewers will vary greatly as reflected by the nature of the pollution problem and the legal authority, functions, and administrative and financial capabilities of the municipality.

As discussed above, in larger urbanized areas, water quality impacts associated with diffuse sources contributing pollutants to discharges from municipal separate storm sewers will extend beyond the boundaries of core cities. In these areas, it is possible that a significant number of municipalities may own or operate municipal separate storm sewers.

Section VII.G.2 of this preamble provides a proposed strategy for developing storm water quality management programs for reducing pollutants in discharges from municipal separate storm sewers through NPDES permits. The components of the storm water quality management programs discussed in today's notice can be divided into two general categories. The first category is comprised of measures that do not require the use of police powers to implement. These components include source identification measures associated with mapping, characterizing discharges by estimating flow rates, pollutant concentrations, pollutant loadings, sampling discharges and identifying illicit connections, and implementing certain controls to reduce pollutants such as public education measures to encourage proper oil disposal or recycling or proper pesticide use. This category also includes activities such as maintaining the separate sewers, and design and engineering methods such as designs for new roads to minimize curb and gutter storm water collection systems. Municipal dischargers generally will not lack legal authority to implement these components of the storm water quality management program.

The second category is comprised of measures that generally may require municipal police powers to implement. Examples of these types of controls include reducing pollutants in construction site or industrial site runoff which discharges to municipal separate storm sewers. The police power required to implement these provisions can take a variety of forms including the power to

develop and enforce ordinances, contracts, orders or similar means.

The municipal entity with primary control over a storm sewer may not have sufficient police powers to implement all aspects of a comprehensive storm water quality management plan. In such cases, a combination of municipal entities may be required in order to guarantee sufficient legal authority, financial capability and administrative capability to implement all components of a storm water quality management program. The degree to which municipalities without sufficient police powers are addressed is a major difference between the options presented below for defining large and medium municipal separate storm sewer systems.

C. Options Considered. EPA requests comments on a number of options for defining large and medium municipal separate storm sewer systems. Generally, the options on which EPA is requesting comments can be classified into two categories. The first category of options, listed below as Options 1, 2, 3, and 4 would define municipal systems in terms of the municipal entity which owns or operates storm sewers. The second category of options would define municipal systems on a geographic basis. With Options 5, 6, and 7, all municipal separate storm sewers within the specified geographic area would be part of the municipal system, regardless of which municipal entity owns or operates the storm sewer.

EPA favors those options for defining municipal separate storm sewer systems that rely primarily on the municipal entity which owns or operates or otherwise has jurisdiction over storm sewers. These options are preferred because they will lessen the administrative complexities of initially developing the permit program for discharges from municipal separate storm sewers by decreasing the number of municipal entities which will initially be subject to the permit program.

EPA requests comments on a wide range of options. The Agency will use the comments received on the various options when developing a final regulation defining large and medium municipal separate storm sewer systems. In addition, the Agency believes that in certain circumstances, comments received on the various options will be beneficial when developing strategies for designating municipal separate storm sewers on a system-wide basis under section 402(p)(2)(E) of the CWA for a permit prior to promulgation of final permit application regulations or prior to development of additional regulations under section 402(p)(6) of the CWA.

Also, EPA intends to consider those municipal separate storm sewers which are ultimately not included in the definition of large and medium separate storm sewer systems, along with other municipal storm sewers, in the studies mandated under section 402(p)(5) of the CWA for appropriate regulation after October 1, 1992 under section 402(p)(6) of the Act. Comments received during this rulemaking, along with other information, will constitute a portion of the section 402(p)(5) study. Therefore, EPA requests comments on the appropriateness of all options for study under section 402(p)(5), and on corresponding procedures and methods to reduce pollutant in discharges from municipal separate storm sewer systems described in each option that would be appropriate as regulations under section 402(p)(6). EPA will, where appropriate, consider today's request for comments on the discharges from those municipal separate storm sewers identified in the various options for defining municipal systems as a proposal for regulation under section 402(p)(6) and establish appropriate regulations (for example, the final regulation may define large and medium municipal separate storm sewer system as proposed in Option 1, and also promulgate permit application requirements for counties with a population of 100,000 or more in unincorporated areas (see Option 3) under section 402(p)(6) with a later date for permit application submittal).

It should be noted that discharges from municipal separate storm sewer systems that are not included in the final regulatory definition of large or medium municipal separate storm sewer system may still be required to obtain an NPDES permit if they are determined, under section 402(p)(2)(E) of the CWA, to be a significant contributor of pollutants or to be contributing to a violation of a water quality standard (see § 122.26(a)(1)(v) of the proposed regulation). The Agency is considering the use of the section 402(p)(2)(E) authority to determine the appropriate scope of large or medium municipal separate storm sewer systems on a case-by-case basis (see Option 2 below).

The Agency prefers to use different criteria to determine the appropriate scope of large or medium municipal separate storm sewer systems on a case-by-case basis (see Option 1 below).

The Agency also requests comments on whether non-municipal, non-industrial storm water discharges (e.g., storm water discharges from Federal facilities without industrial activities) that have been determined to be significant under section 402(p)(2)(E) should be addressed as part of a large or medium municipal separate storm sewer system.

In addition, the Agency requests comments on providing municipalities with an opportunity (see proposed § 122.26(f)(3)), to submit a petition to adjust the Census estimates of the population of the municipality to account for storm water discharges to combined sewers. The Agency prefers that storm water discharges to combined sewers be addressed in permits issued for discharges from combined sewer overflows (CSOs) and from publicly owned treatment works (POTWs).

Option 1: Systems Owned or Operated by Incorporated Places Augmented by Potential Inclusion of Interrelated Discharges. EPA proposes that the definition of large and medium municipal separate storm sewer system include those municipal separate storm sewers owned or operated by "incorporated places" with a population which exceeds the appropriate limit. (EPA is proposing to define the term "incorporated place" at 40 CFR 122.26(b)(3) to include the District of Columbia, or a city, town or village that is incorporated under the laws of the State in which it is located. The proposed term "incorporated place" does not include county governments, and certain other municipal entities such as flood control districts, and sewer districts.)

The Agency believes that this approach would provide for the initial development of core storm water management programs in the largest cities in the Nation. The Census Bureau estimates for 1986 indicate that 60 incorporated places have populations of more than 250,000 and that 122 places have populations of more than 100,000 but less than 250,000. The Agency recognizes that many of these cities currently do not have comprehensive programs to address storm water quality. In addition, most of the NPDES States and EPA Regions have limited experience in addressing storm water quality management in the comprehensive manner that is envisioned in this rulemaking. Because of the relative newness of the storm water NPDES program for discharges from municipal systems, the Agency anticipates that, generally, more resources will be needed to begin to implement the initial phases of the program, and therefore, Option 1 provides a reasonable and realistic basis for the initial phases of

development of this program. In addition, this option provides the maximum flexibility for EPA to continue to study the appropriate manner to expand the NPDES program after October 1, 1992 for discharges from municipal separate storm sewers. In this manner, additional flexibility to develop requirements which are tailored to the legal nature and capabilities of various municipalities will be provided.

Option 1 focusses primarily on discharges from municipal separate storm sewer systems that are owned or operated by one municipality, an "incorporated place" with a population of 250,000 or more, or of 100,000 or more. However, in many cases, discharges from municipal separate storm sewers owned or operated by "incorporated places" with a population of 250,00 or more, or of 100,000 or more, will have interrelated impacts and be otherwise interrelated (but not necessarily physically interconnected) to discharges from municipal separate storm sewers owned or operated by municipal entities *other than* an "incorporated place" with a population of 250,000 or more, or 100,000 or more. Wide differences in the physical nature and in water-quality impacts can be expected between drainage systems of various developed areas, as well as differences in the legal authorities and jurisdictions associated with municipalities responsible for storm water discharges.

EPA prefers the Director of the NPDES program make case-by-case decisions on the total scope of each large and medium municipal separate storm sewer system. The Agency is proposing that the definitions of large and medium municipal separate storm sewer system provide for case-by-case designation of interrelated discharges from municipal separate storm sewers that are owned or operated by municipal entities *other than* an "incorporated place" with a population of 250,000 or more, or 100,000 or more based on a discretionary consideration of: the physical interconnections between the municipal separate storm sewers; the location of discharges; the quantity and nature of pollutants discharged; the nature of the receiving waters; or other relevant factors (see proposed § 122.26(b)(4)(ii) and (7)(ii)). For example, discharges from separate storm sewers associated with a State highway running through an "incorporated place" with a population of over 100,000 along with discharges from separate storm sewers owned by the "incorporated place" may adversely impact a stream. In such a case, the Director may consider designating the discharge from the State highway as *part* of the municipal separate storm sewer system serving that "incorporated place".

Accordingly, the proposed definitions of the terms large and medium municipal separate storm sewer system are intended to provide, within the definitions themselves, a flexible and administratively simple way for the Director to decide, on a case-by-case basis, whether and how to include other relevant "interrelated" municipal discharges (for example, discharges from one or more other adjacent smaller municipalities' separate storm sewers systems) into each large or medium municipal separate storm sewer system for NPDES permitting purposes. The approach in the proposed definitions would not require the Director to first determine that the smaller municipality's discharge meets the standard of section 402(p)(2)(E).

Thus, under Option 1, a consideration of location-specific factors would provide flexibility to establish the appropriate total scope of each "municipal separate storm sewer system". In addition, this approach may reduce the burden on some municipalities designated into the "system" when they participate, with the "incorporated place" whose storm sewers are the core of the same system in the development of a single system-wide permit application.

The municipality to be designated into the NPDES-regulated "system" on this basis would not have to meet any criteria for size of population.

EPA requests comments on the appropriate criteria and procedures for designating other municipalities into the large and medium municipal separate storm sewer systems on a case-by-case basis.

Option 2: Systems Owned or Operated by Incorporated Places Augmented by Including Other Municipal Discharges Determined to be Significant Under Section 402(p)(2)(E) Authority. This Option is similar to Option 1, in that it would focus primarily on discharges from municipal separate storm sewer systems that are owned or operated by one municipality, an "incorporated place" with a population of 250,000 or more, or of 100,000 or more. However, this option would differ in the approach to addressing interrelated municipal separate storm sewer discharges from multiple municipalities.

Under Option 2, a discharge from a municipal separate storm sewer that is owned or operated by a municipal entity *other than* an incorporated place with a population of 250,000 or more or a population of 100,000 or more, but less than 250,000, could be designated as *part* of the large or medium municipal separate storm sewer system if the Director of the NPDES program determines that the discharge is contributing to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States. Such a determination could be based on the consideration of: the location of the discharge with respect to waters of the United States; the size of the discharge; the quantity and nature of the pollutants discharged to waters of the United States; and other relevant factors (see § 122.26(a)(1)(v)(A)–(D) of the proposed regulation).

This option provides different designation criteria and standards and less administrative flexibility than the designation process described in Option 1. Option 2 would still allow consideration of location specific factors, but would establish a more stringent threshold which must be met before expanding the scope of a large or medium municipal separate storm sewer system on a case-by-case basis.

Municipalities included in the NPDES-regulated "system" on the basis of section 402(p)(2)(E) would not have to meet any specific criteria based on size of population.

As in Option 1, Option 2 may reduce the burden on some municipalities deemed to be part of the large or medium municipal separate storm sewer system when they participate, with the "incorporated place" whose storm sewers are the core of the same "system", in the development of a single system-wide permit application.

EPA request comments on the appropriate criteria and procedures for making case-by-case determinations of the scope of large and medium municipal separate storm sewer systems using the § 402(p)(2)(E) authority.

Option 3: Systems Owned or Operated by Counties. In most States, the primary divisions of the State are counties. In Louisiana, the primary divisions are parishes. In Alaska, the State is divided into organized or unorganized boroughs.

The importance of a county in the government structure of a State varies greatly from State to State. In some western and southern States, counties are divided into townships for limited administrative purposes. In these States, the county is the basic unit of government. In a group of States extending from New York and New Jersey into the Mid-West, the entire county may be divided into townships. In other States, the county is divided

into incorporated and unincorporated areas, with the importance of the county government varying throughout the county. Generally, counties have an important role in highway construction and maintenance [the Census Bureau estimates that, nation-wide, counties are responsible for 32 percent of the expenditures of local governments made for highways], and may assume other responsibilities for drainage.

EPA requests comments on extending the definition of large and medium municipal separate storm sewers to include, in addition to municipal separate storm sewer systems owned or operated by an incorporated place with a population equal to, or exceeding the appropriate limit, storm sewers that are owned or operated by a county government entity in counties with the appropriate population. Under this approach, municipal separate storm sewers owned or operated by cities, towns, townships, boroughs and other municipal entities with a population of less than 100,000 within the county would not be defined as part of the county system.

As discussed above, the legal authority of county governments will vary from State to State, and in many counties may vary throughout the county. To successfully implement this approach with respect to county owned or operated separate storm sewers, permits will have to incorporate storm water quality management programs which would reflect and be compatible with the variations in the county government's legal authority. Thus, the requirements in the management program may vary to reflect the legal authority of the county in a given location. For example, in unincorporated areas of the county, where the county is the primary municipal entity, the storm water quality management program may have all of the appropriate components that are discussed in today's notice. However, in certain areas of the county with incorporated places with a population of less than 100,000, the permit may only address control measures which do not require legal authority to implement [see above].

Census estimates for 1986 indicate that 185 counties have populations of 250,000 or more, while 225 counties have populations of 100,000 or more, but less than 250,000. After considering the number of permits that would be initially required under this option, along with the extensive surface area covered by the combined counties, the Agency believes that this option is not practicable for the initial phases of program development. Rather than addressing all counties with a population of 250,000 or more or between 100,000 and 250,000, many of which encompass extensive rural areas, in the initial phases of program development the Agency will consider various alternatives for establishing the size of the population which is served by the county.

EPA also requests comment on basing the definition of the population served by the municipal storm sewer system on the population of a county which resides within urbanized areas that have been defined by the Census Bureau. This system of measuring populations would provide a means to establish priorities for counties based on the amount of urban developed land in the county. Although all municipal storm sewers owned or operated by an applicable county would be part of the municipal separate storm sewer system, and would be subject to permit requirements, measures to reduce pollutants to the maximum extent practicable would be focused on where water quality improvements are needed, i.e., on the most heavily populated areas of the county and on industrial lands, which are generally expected to cause more water quality impacts.

EPA also requests comment on defining the population served by the county owned or operated municipal storm sewer system as that population of the county which resides outside of incorporated areas of the county. This approach would focus on counties with high populations in unincorporated areas, because these counties would be assumed to generally have greater legal authority, and financial capability for developing and implementing a storm water quality management program. This approach assumes that, in unincorporated areas of a county with a high population, the county government is the functional equivalent of an incorporated government.

Option 4: Systems Owned and Operated by States. Each State has an extensive separate storm sewer system that drains State highways. EPA requests comments on, in addition to other systems of municipal storm sewers, all separate storm sewers associated with State highways should constitute a single system. This approach may simplify the permit application and issuance process for State Departments of Transportation and for the permit issuing agency by consolidating all State highways into one system. In addition, this approach provides a basis for consistent regulation of municipal separate storm sewers associated with State highways which would allow priorities to be established on a consideration of the entire State system. EPA is considering this option in conjunction with other options (for example, EPA could define large municipal separate sewer systems to include municipal storm sewers described in Option 1 and Option 4).

Option 5: Incorporated Place Boundaries. Within the boundaries of an incorporated place, in addition to the storm sewer owned or operated by the incorporated place, some municipal separate storm sewers may be operated by county agencies, State agencies, flood control districts or sewer districts.

Option 5 differs from Option 1 in that all municipal separate storm sewers within an incorporated place with an appropriate population would always be part of the municipal system, instead of beginning with only those municipal storm sewers owned or operated by the incorporated place. Where multiple agencies within a single jurisdiction have storm water management responsibilities, the Agency would consider appropriate interagency agreements to ensure the development of comprehensive control programs and the development of permit conditions which may, for a given discharge, require one municipal entity to implement one set of controls which require police power to implement and another municipal entity to implement a different set of controls which pertain to the operation of the storm sewer.

This approach would create some additional complexity to the initial phases of development of the NPDES storm water program by increasing the scope of the program to include additional municipal permittees. Option 5 would also provide for case-by-case designations as discussed under Option 1 for interrelated discharges from municipal separate storm sewers outside of the incorporated place with a population of 250,000 or more, or of 100,000 or more.

However, the basis of the Option 5 approach would ensure that all discharges from municipal separate storm sewers within the incorporated place were initially addressed under the NPDES program and would provide a mechanism for developing intergovernmental agreements where necessary.

Option 6: County Boundaries. EPA requests comments on defining large and medium municipal separate storm sewer systems to include all municipal separate storm sewers that are located in a county with a population that exceeds the appropriate statutory population limit. Under this approach,

all municipal separate storm sewers that are located within a county with the appropriate population would constitute a large or medium municipal system.

The Agency does not favor defining large and medium municipal systems based on county boundaries at this time because of the extremely large number of municipal entities which would be affected during the initial phases of the storm water program. In addition to the 410 counties with populations of 100,000 or more, several thousand other municipal entities would be affected under this approach. The Agency prefers to develop core programs within the central cities before addressing these municipalities. For this reason, EPA prefers, at this time, to continue to consider this option under the studies mandated under Section 402(p)(5).

In comparing this option to option 1, it should be noted that addressing discharges from separate storm sewers within counties would, in larger urbanized areas, provide a geographic basis necessary for the planning of comprehensive programs to reduce pollutants in discharges from municipal separate storm sewer systems to the maximum extent practicable.

The EPA believes that basing the definition of large and medium municipal storm sewer systems on counties would offer additional flexibility in developing pollution control strategies and targeting controls where water quality improvements are needed and can be achieved in a practicable manner. For example, the NURP study indicated that it is much more feasible and cost-effective to develop controls for areas that are in the process of being developed than it is to develop controls for areas that are more fully developed. This option would allow municipalities flexibility to address storm water concerns associated with many areas of rapid development, rather than relying more heavily on retrofitting controls in older urban core areas defined by city limits.

The water quality impacts of urban runoff are generally more significant for smaller rivers and streams where the ratio of the portion of the drainage basin that is developed to the portion that is undeveloped is relatively high. The county option provides an adequate basis to address existing and future water quality impacts associated with municipal separate storm sewers for many of these water bodies.

Option 7: Unbanized Areas. The storm water permit application regulations that were promulgated in September 26, 1984 established the scope of the requirement to obtain a permit by limiting the definition of storm water point source as it related to municipal separate storm sewers to areas that were located on urbanized areas designated by the Bureau of Census. Prior to the enactment of the WQA, the use of the urbanized area designation to limit the scope of NPDES permit program served as an important tool to establish manageable limits on the large administrative burden associated with preparing and processing permit applications for individual discharges from municipal separate storm sewers. However, the WQA provides several mechanisms which ease this burden, including authorizing the Director to issue permits for municipal storm sewers on a system- or jurisdiction-wide basis, thereby greatly reducing the administrative burden associated with permitting municipal storm sewers. Under this new authority, the advantages of retaining the use of urban area designations to determine initial permit applicability are outweighed by the difficulties associated with defining which discharges are within the urban area and with using urban area boundaries which often do not follow political boundaries. Because the boundaries of urban areas do not follow political boundaries, this option may create additional administrative complexity where some discharges from in a given municipality are addressed initially, and other discharges in other parts of the municipality must be addressed later under regulations developed under section 402(p)(6). Further, the urban areas designated in 1980 do not include many other areas that are undergoing rapid development today. Using more recent estimates of urban areas may create uncertainty in the regulatory definition. Also, areas of new development would not be addressed until after the development had progressed significantly, and therefore, opportunities to limit pollutants from the areas of new development would be limited. Nationwide, urban areas increased by approximately 4% in area annually.

5. System-Wide Permit Applications

Section 402(p)(3)(B)(i) of the amended CWA provides that permits for municipal discharges from municipal storm sewers may be issued on a system-wide or jurisdiction-wide basis. This provision is an important tool towards reaching the goal of developing the comprehensive storm water management programs envisioned by the Act.

The system-wide permit approach represents a drastic change from the regulatory approach taken in the 1984 regulations, which required individual permit applications for each outfall located in a Census designated urban area. The 1984 permit applications were to serve as the basis for developing conditions for individual permits for each discharge. EPA proposes to abandon the individual permit approach for municipal storm sewer outfalls in favor of a program approach that will allow system-wide planning and implementation and appropriate targeting of controls based on an evaluation of priorities.

Under the permit application requirements proposed in today's rule, if the appropriate co-applicants are identified, one permit application may be submitted for a large or medium municipal separate storm sewer system (see § VII.E.4 above). System-wide permit applications can in turn be used to issue system-wide permits which could cover all discharges in the system.

Where several municipal entities are responsible for obtaining a permit for various discharges within a single systems, the Agency will encourage system-wide permit applications involving the several municipal entities for a number of reasons. The system-wide approach not only provides an appropriate basis for planning activities and coordinating development, but also provides municipal entities participating in a system-wide application the means to spread the resource burden of monitoring, evaluating water quality impacts, and developing and implementing controls. The system-wide approach provided in today's notice recognizes differences between individual municipalities with responsibilities for discharges from the municipal system by allowing for different permit conditions to apply to different municipalities. To encourage this flexibility, the permit application requirements proposed in today's notice allow individual municipalities participating in system-wide applications to submit information regarding municipality specific storm water quality management programs to reduce pollutants in system discharges.

In some cases, it may be undesirable for all municipal entities with storm water responsibility within a municipal system to be co-permittees under one system-wide permit. The permit application requirements proposed in today's notice allow individual municipal entities within the system to submit permit applications and obtain a permit for that portion of the storm sewer system for which they are responsible. Thus, several permits may be issued to cover various subdivisions of a single municipal system.

6. Co-Permittees to System-wide Permits

Although several of the proposed options for defining large and medium separate storm sewer systems focus primarily on municipal separate storm sewers that are owned or operated by incorporated cities, towns or villages with the appropriate population (e.g., options 1, 2, or 5), the definition of the "system" could be modified by the Director of the NPDES program on a case-by-case basis to include municipal separate storm sewers owned or operated by other municipal entities.

To accommodate the issuance of permits in which several municipalities are co-permittees, the permit applications for municipal storm sewers described in today's proposal have been designed to facilitate multiple municipal agencies (i.e. flood control districts, local governments, State Departments of Transportation) submitting a joint permit application appropriate for issuing system-wide permits with multiple co-permittees. EPA is requesting comments on this approach, and when it would be appropriate to tailor the permit application requirements to meet the needs of different types of municipal agencies (for example, should distinct permit application requirements be developed for State Departments of Transportation).

G. Permit Application Requirements for Large and Medium Municipal Systems

The August 12, 1985 notice had proposed to clarify that storm water discharges from municipal separate storm sewers would be classified as Group I storm water discharges. The Group I classification, indicating a higher potential for contributing to an adverse environmental impact, was justified on the basis of data from the NURP study of urban runoff which indicate that in many instances BOD loadings in urban runoff were estimated as comparable to that from secondary treatment facilities, while TSS loadings were estimated to be a factor of ten times higher than loadings from secondary treatment plants. The NURP study also found high levels of heavy metals and several organic chemicals in urban runoff.

The Group I classification triggered permit application requirements which included quantitative data sampling for each Group I outfall. In the August 12, 1985 notice, EPA proposed to require that quantitative sampling data for all outfalls from municipal separate storm systems be submitted in permit applications. Eight comments were received on this issue. Six of the commenters objected to the proposal because they felt that such a requirement would create an undue burden on municipalities which have many outfalls. Some municipalities suggested identifying the area drained by the system and then selecting points for representative sampling. Another commenter argued that if three or four outfalls are receiving similar runoff, the participant should only be required to sample one outfall. Other commenters suggested that only outfalls that are suspected of having pollution problems should be tested, although no basis for determining such "problem" outfalls were offered. Two of the eight commenters, both State agencies, felt that all outfalls should be tested.

Today's notice proposes to abandon the Group I classification system and requests comments on replacing the prior permit application system for discharges from municipal systems, based primarily on sampling all outfalls, with a system that involves comprehensive system-wide evaluation of pollutant sources. The permit application requirements for discharges from large and medium municipal separate storm sewer systems proposed in today's notice do not focus on the collection of data at each outfall of the municipal system, but rather require a screening analysis to identify areas of the system affected by illicit non-storm water discharges and some representative sampling.

The permit applications for municipal storm sewer systems proposed in today's notice are applicable to large municipal storm sewer systems (systems serving a population of more than 250,000); medium municipal storm sewer systems (systems serving a population of more than 100,000 but less than 250,000) and any other municipal separate storm sewer system that is required to obtain a permit that the Administrator or NPDES State designates under section 402(p)(2)(E).

1. Strategy for Implementing the Permit Program

Given the differing nature of discharges from municipal separate storm sewer systems in different parts of the country, and the varying water quality impact of municipal storm sewer discharges on receiving waters, EPA intends to develop permit application requirements designed to lead to the development of site-specific storm water management programs. In order to effectively implement this goal, EPA is currently rethinking the appropriate structure and purpose of the NPDES permit program as it applies to municipal separate storm sewers systems. EPA believes that the appropriate permitting strategy (including both the permit application and the permit) for controlling pollutants from municipal separate storm sewers should involve the following components:

- Identifying significant sources of pollutants;
- Characterizing pollutants associated with discharges from the municipal separate storm sewer system;
- Estimating expected changes in the characteristics of pollutants in discharges from the municipal separate storm sewer system associated with population growth and changes in land use activities;
- Initially assessing impacts on the water quality of receiving water bodies;
- Proposing controls to reduce pollutants to the maximum extent practicable;
- Estimating the changes in the characteristics of pollutants in discharges from municipal separate storm sewer systems associated with proposed controls;
- Modifying the proposal of controls to reduce pollutants to reach desired objective (control pollutants to the maximum extent practicable);
- Implementing controls; and
- Evaluating changes in water quality associated with implementing controls.

EPA is proposing to structure the permit application requirements for large- and medium-sized municipal systems to address:

- The development of a municipal storm water management program to control pollutants in municipal storm water discharges. Viable management programs must have adequate legal authority and financial capabilities to ensure compliance with permit conditions;
- A process to identify sources which contribute pollutants to municipal storm water discharges;
- Initial characterization of the discharges from the municipal storm sewer system; and
- Proposed management plans to reduce the discharge of pollutants from municipal storm sewers to the maximum extent practicable.

This information is necessary to allow permits to be based on site-specific best professional judgement evaluations of appropriate pollution control measures. EPA requests comment on the overall strategy for developing a permit program for discharges from municipal separate storm sewers and on which aspects of the strategy should be incorporated into permit applications.

2. Structure of the Permit Application

EPA is proposing a two part permit application that is consistent with the goal of developing site-specific water quality management programs for storm water in NPDES permits

a. Part 1 Application. Part 1 of the permit application is intended to provide an adequate basis for identifying sources of pollutants to the municipal storm sewer system; to preliminarily identify discharges of storm water that are appropriate for individual permits; and to formulate a strategy for characterizing the discharges from municipal separate storm sewer systems.

The components of Part 1 of the permit application include a description of:

- General information regarding the permit applicant or co-applicants (§ 122.26(d)(1)(i));
- A description of the existing legal authority of the applicant(s) to control pollutants in storm water discharges and a plan to augment legal authority where necessary (§ 122.26(d)(1)(ii));
- Source identification information including a description of the historic use of ordinances or other controls which limited the discharge of non-storm water discharges to municipal separate storm sewer systems and the location of known municipal separate storm sewer outfalls (§ 122.26(d)(1)(iii));
- Information characterizing the nature of system discharges including existing quantitative data, the results of a field screening analysis to detect illicit discharges and illegal dumping to the municipal system; an identification of receiving waters with known water quality impacts associated with storm water discharges; a proposed plan to characterize discharges from the municipal storm sewer system by estimating pollutant loads and the concentration of representative discharges, and a plan to obtain representative data (§ 122.26(d)(1)(iv)); and
- A description of existing structural and non-structural controls to reduce the discharge of pollutants from the municipal storm sewer (§ 122.26(d)(1)(v)).
- The submittal of Part 1 of the permit application will allow EPA, or approved NPDES States, to adjust the Part 2 permit application requirements to assure flexibility in developing permit application requirements that are appropriate for the permit applicant given the site specific characteristics of the municipal storm sewer system.

b. Part 2 Application. Part 2 of the proposed permit application is designed to supplement information provided in the Part 1 permit application and to provide municipalities with the opportunity of proposing a comprehensive program of structural and non-structural control measures that will control the discharge of pollutants, to the maximum extent practicable, from municipal storm sewers. The components of the proposed Part 2 permit application include:

- A demonstration that the legal authority of the permit applicant satisfies regulatory criteria (§ 122.26(d)(2)(i));
- Supplementation of the source identification information submitted in the Part 1 application to assure that all major outfalls are identified (§ 122.26(d)(2)(ii));
- Information to characterize discharges from the municipal system including quantitative data from a screening analysis for detecting illicit discharges and illegal dumping, representative data and estimates of pollutant loadings and concentrations of pollutants in discharges (§ 122.26(d)(2)(iii));
- A proposed management program to control the discharge of pollutants to the maximum extent practicable, from municipal storm sewers (§ 122.26(d)(2)(iv));
- Assessment of the performance of proposed controls (§ 122.26(d)(2)(v));
- A financial analysis estimating the cost of implementing the proposed management programs along with identifying sources of revenue (§ 122.26(d)(2)(vi)); and
- A description of the roles and responsibilities of co-applicants (§ 122.26(d)(2)(vii)).

In addition to providing site-specific information, the permit application requirements proposed in today's notice have been designed to allow municipalities an opportunity to propose the set of controls that, in the applicant's opinion, representing the most appropriate means of controlling the discharge of pollutants from municipal storm sewer systems. These proposed plans will be used by the permitting authority to develop permit conditions to control pollutants in the discharges from municipal separate storm sewer systems to the maximum extent practicable. This overall scheme recognizes that local government entities have a critical responsibility for evaluating the nature and sources of pollutant discharges from municipal separate storm sewer systems and for devising appropriate methods of control. Proper development of proposed municipal storm water management programs affords municipalities the opportunity to propose model conditions for their own permits.

3. Major outfalls

In past rulemakings, a controversial issue has been the appropriate sampling requirements for municipal separate storm sewer systems. Earlier storm water rulemakings have been based primarily on the principle that all discharges to waters of the United States from municipal separate storm sewers located in urban areas must be covered by an individual permit. This approach required that individual permit applications contain quantitative data to be submitted for all such discharges. This approach was criticized because of the extremely large number of outfalls in some municipal separate storm sewer systems. Most incorporated cities with a population of 100,000 or more do not know the exact number of outfalls from their municipal systems, but estimates range from 50 to 1,000 or more.

Under the approach taken in earlier rulemakings, the impacts of pollutant loads and impacts on ambient water concentration from municipal storm sewer systems would be analyzed by evaluating samples from all of the discharges from the system. This approach would involve evaluating water quality impacts through the use of models to estimate pollutant loads and to estimate ambient water concentrations during and immediately after storm events, and to calibrate the models using the quantitative data from each outfall. Under this earlier approach, limited information regarding pollutant sources would be available in the permit application to select appropriate models for estimating pollutant loads. Rather, relatively general models would be used which relied on limited quantitative data to assure that the model was calibrated.

In light of the increased flexibility provided by the WQA for regulating municipal separate storm sewer discharges, the approach proposed in today's notice will not require submittal of individual permit applications with quantitative data for each outfall of a municipal system, but rather will encourage systemwide permit applications to provide information suitable for developing effective storm water management programs. Under this approach, not all outfalls of the municipal system will be sampled, but rather more specific and accurate models for estimating pollutant loads and discharge concentrations will be used. The use of these models will require the identification of sources which are responsible for discharging

pollutants into municipal separate storm sewers and will not require as much data to calibrate due to the source-specific nature of the model. A number of standard and localized models have been developed for estimating pollutant loads from storm water discharges. For example, the United States Geological Survey (USGS) has developed four sets of regression equations for 10 pollutants in urban runoff (see "Estimation of the Urban Storm-Runoff Quality and Quantity Data in Metropolitan Areas throughout the United States", 1988). The NURP study provides event mean concentration estimates for 10 pollutants. EPA requests comments on the use of these and other standard and localized models.

By adopting an approach that incorporates source identification measures, the amount of quantitative data required to characterize discharges from the municipal systems will be reduced because of the increased accuracy of site-specific models which can be used. Consistent with a system-wide permit application approach, EPA is proposing to focus source identification measures on "major outfalls". The proposed definition of major outfalls includes any municipal separate storm sewer outfall that discharges from a pipe with a diameter of more than 36 inches or its equivalent (discharges from a drainage area of more than 50 acres); or municipal separate storm sewers that receive storm water from lands zoned for industrial activities, an outfall that discharges from a pipe with a diameter of more than 12 inches or its equivalent (discharges from a drainage area of 2 acres or more). EPA views that it is appropriate to focus source identification and characterization measures conducted as permit application requirements on these outfalls to provide initial screening information that will allow priorities to be set for the system. However, it should be clarified that *all* outfalls from medium and large municipal separate storm sewer systems need to be covered by the permit applications proposed in today's notice and that *all* outfalls from such systems will need to be covered by a permit.

EPA requests comments on the proposed definition of major outfall, and whether outfalls with a diameter of more than 36 inches or its equivalent, or for municipal separate storm sewers that receive storm water from lands zoned for industrial activities, an outfall that discharges from a pipe with a diameter of more than 12 inches or its equivalent provides an appropriate number of outfalls for focusing source identification requirements. Where practicable, comments should include data indicating the distribution of outfall sizes within municipal systems.

4. Viable Program

Perhaps the most important function of the NPDES permit program for municipal separate storm sewers is to ensure that local governments establish viable programs to control pollutants in discharges from municipal separate storm sewers. The proposed permit application requirements address three components of a viable local program for controlling pollutants in discharges from municipal separate storm sewers: legal authority, financial and administrative capability. The ability of a permit applicant or a set of permit applicants to satisfy these criteria will be evaluated in light of the site-specific proposed management plans proposed at 122.26(d)(2)(iv) (discussed in § VII.E.7 of the preamble).

Although pollutants in discharges from municipal separate storm sewers can be controlled by providing end-of-pipe treatment, many representatives from municipalities have expressed concerns that providing treatment for all outfalls from large and medium municipal separate storm systems is technically and economically infeasible. These representatives have expressed a willingness to explore alternative methods, such as developing a variety of preventive source control measures, to control pollutants in such discharges.

However, if source controls are to function in lieu of end-of-pipe treatment, then the permittee, or a set of co-permittees, must have adequate legal authority to ensure that controls on discharges to a municipal storm sewer are implemented and that permit conditions based on source control measures do not become ineffective "paper" requirements.

EPA is proposing that municipal separate storm sewer system permit applicants demonstrate legal authority established by statute, ordinance, or series of contracts which authorizes or enables the applicant at a minimum to:

- Control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by each storm water discharge associated with industrial activity;
- Prohibit through ordinance, order or similar means, the discharge of illicit discharges to the municipal separate storm sewer;
- Control through ordinance, order or similar means, the discharge to a municipal separate storm sewer of spills, dumping or disposal of materials other than storm water;
- Control through interagency agreements among coapplicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system;
- Require compliance with conditions in ordinances, permits, contracts or orders; and
- Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and non-compliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer.

EPA requests comments on the process by which municipal applicants should demonstrate legal authority and how EPA should evaluate the legal authority of municipal applicants.

In order to ensure that all permit conditions, including both structural and source control measures, are implemented, EPA is proposing to require that permittees demonstrate that they have the fiscal resources and administrative capabilities to carry out the objectives of the permit.

EPA is proposing to require municipal permit applicants to submit a fiscal analysis of expenditures that will be required in order to implement the proposed management plans required in Part 2 of the application. The description of fiscal resources should include a description of the source of the funds.

EPA is requesting comments as to the appropriateness of these criteria for permit applicants for municipal separate storm sewer systems and on what additional criteria should be defined to ensure a viable program to control pollutants in discharges from municipal storm sewers.

5. Source Identification

The identification of sources which contribute pollutants to municipal separate storm sewers is a critical step in characterizing the nature and extent of pollutants in discharges and in developing appropriate control measures. Source identification can be useful for providing an analysis of pollutant source contribution and for identifying the relationship between pollutant sources and receiving water quality problems. In cases where end-of-pipe controls alone are not practicable, it is essential to identify the source of pollutants into the municipal storm sewer systems to support a targeted approach to control pollutant sources.

The relative contribution of pollutants from various sources will be highly site-specific. The first step in developing a

targeted approach for controlling pollutants in discharges from municipal storm sewer systems is identifying the various sources in each drainage basin that will contribute pollutants to the municipal storm sewer system.

Source identification information can serve as the basis for loading estimates (see § VII.E.6.C) and the identification of those discharges to the municipal system with a higher potential to create adverse environmental impacts.

EPA is proposing to phase in the source identification requirements of the permit program by establishing minimum objectives in Part 1 of the application and by requiring applicants to submit a source identification plan in Part 2 of the application to provide additional information during the term of the permit. The minimum source identification requirements of Part 1 have been designed to provide sufficient information to provide an initial characterization of pollutants in the discharges from the municipal storm sewer system. EPA realizes that with many large, complex municipal storm sewer systems, it may be difficult to identify all outfalls during the permit application process. EPA is proposing that known outfalls be reported in Part 1 of the application. Part 1 of the application will also include a description of procedures and a proposed program to identify additional major outfalls. The information required in the proposed Part 1 application also includes identification of the drainage area associated with known outfalls, a description of major land use classifications in each drainage area, descriptions of soils, the location of industrial facilities, open dumps, landfills or RCRA hazardous waste facilities which discharge storm water to the municipal storm sewer system.

Although many municipalities have extensive information regarding the network of conveyances in their municipal separate storm sewer systems, others do not. Municipalities without existing maps would face extreme difficulties in attempting to identify during the permit application process the network of conveyances in their municipal systems. Therefore, applicants are *not* required to identify the conveyance network of the municipal system, but rather need to provide the location of major outfalls (certain points where the municipal system discharges to waters of the United States) and estimates of the area drained by the portion of the system associated with the outfall.

In addition to identifying outfalls from municipal storm sewer systems for the development of a management program to reduce pollutants in storm water discharges, it is also important to identify the location of such outfalls to clarify where the storm sewer system ends and where waters of the United States begin. In many situations, waters of the United States that receive discharges from municipal storm sewers can be mistakenly considered to be part of the storm sewer system. Permit applicants should refer to the regulatory definition of waters of the United States at 40 CFR 122.2 for appropriate guidance. The Director of the NPDES program will be able to make any necessary clarifications during the application process.

The proposed Part 1 application requires applicants to submit ten year projections of population growth and development activities. Population data and development projections will be useful for future predictions of loadings to receiving waters from municipal storm sewer systems, and capacities required for treatment systems. In general, population projections should reflect various scenarios of development (high, medium, low relative to recent trends).

Part 2 of the application will supplement the information reported in the Part 1 application so that, at a minimum, all major outfalls are identified.

Some municipalities, in recognition of the importance of mapping and source identification, have already developed extensive maps of their municipal storm sewer system. In addition, much of the information required in today's proposal will usually have been compiled by other planning agencies in a variety of forms such as land use plans and soil survey maps. Population data are readily available from the Census Bureau, municipal planning departments or public utility records.

Although municipalities or public entities may not keep records identifying dischargers into the storm water collection system, methods usually exist from which such information can be gathered (e.g., water and sewer bills, tax records, zoning permits, etc.). EPA is also proposing that facilities that discharge storm water associated with industrial activity to large or medium municipal separate storm sewer systems submit notifications of the discharge to the municipality (see proposed § 122.26(a)(3)(vii)). Under today's proposal, municipal or public entities responsible for applying for and obtaining an NPDES permit will be required to identify the location of an open dump, sanitary landfill, municipal incinerator or hazardous waste treatment, storage, and disposal facility under RCRA which may discharge storm water to the system as well as all facilities which discharge storm water associated with industrial activity into a large or medium municipal separate storm sewer system.

Requiring these source identification measures is supported by the legislative history of section 405 of the WQA, which instructs that "[i]n writing any permit for a municipal separate storm sewer, EPA or the State should pay particular attention to the nature and uses of the drainage area and the location of *any* industrial facility, open dump, landfill, or hazardous waste treatment, storage, or disposal facility which may contribute pollutants to the discharge." (emphasis added) (Vol 133 Cong. Rec. S752 (daily ed. Jan. 14, 1987)).

EPA is requesting comment on the appropriate elements and level of detail of the source identification process. Comments should address the adequacy of the proposed requirements for preparing initial estimates of pollutant loads and for estimating the concentration of pollutants in discharges from the municipal system based on the minimum source identification requirement in Part 1 of the application and for developing appropriate background information or developing storm water management plans.

6. Characterization of Discharges

The characterization plan proposed in today's notice is comprised of several major components:

- A screening analysis to provide information to develop a program for detecting and controlling illicit connections and illegal dumping to the municipal separate storm sewer system;
- Initial quantitative data to allow the development of a representative sampling program to be incorporated as permit conditions;
- System-wide estimates of annual pollutant loadings and the mean concentration of pollutants in discharges resulting from a representative storm and a program to, during the life of the permit, provide estimates for each major outfall of the seasonal pollutant loadings and the event mean concentration of pollutants in discharges resulting from a representative storm; and
- An identification of receiving waters with known water quality impacts associated with storm water discharges.

a. Screening Analysis for Illicit Discharges. Illicit discharges (non-storm water discharges without a NPDES permit) and illegal dumping to municipal separate storm sewer systems occur in a

relatively haphazard manner. Due to the unpredictability of such discharges, a field analysis is necessary for the developing priorities for detecting and controlling such discharges. As discussed in greater detail in § VII.G.7.b of today's notice, EPA is proposing to require that municipal applicants submit a comprehensive plan to develop a program to detect and control illicit connections and illegal dumping. In order to develop appropriate priorities for these programs, EPA is proposing that applicants submit the results of a two-phased screening analysis to be performed on known major outfalls in the systems to detect the presence of illicit hookups and illegal dumping.

The results of the first phase of the screening analysis, referred to as the field screen, would be reported in Part 1 of the permit application. The information received from the field screen would be used to develop requirements for the second phase of the screening analysis, the results of which would be reported in Part 2 of the application.

Under the proposed requirements for a field screen, the applicant or co-applicants would submit a description of observations of dry weather discharges for all known major outfalls in Part 1 of the application. At a minimum, the field screen would include a description of visual observations made during a dry weather period. If any flow is observed during a dry weather period, two grab samples would be collected during a 24 hour period with a minimum period of four hours between samples. For all such samples, a description of the color, odor, turbidity, the presence of an oil sheen or surface scum as well as any other relevant observation regarding the potential presence of non-storm water discharges or illegal dumping would be provided. In addition, the results of a field screen using on-site methods to estimate pH, total chlorine, total copper, total phenol, total and hexavalant chromium, detergents (or surfactants) and free cyanide would be provided along with an estimate of the flow rate. EPA does not intend to require that analytical methods approved under 40 CFR Part 136 be used exclusively in the field screen. Rather, the use of inexpensive field sampling techniques such as the use of colormetric detection methods is anticipated. Where the field screen does not involve analytical methods approved under 40 CFR Part 136, the applicant would be required to provide a description of the method used which includes the name of the manufacturer of the test method, including the range and accuracy of the test. EPA is requesting comments on appropriate field techniques for a field screen of dry weather discharges. EPA also requests comments on requiring the field screen for all major outfalls, whether the proposed definition of major outfalls is appropriate for this purpose, or whether the number of major outfalls subject to the field screen in the Part 1 application should be limited.

It should be clarified that data from the field screen would generally not be appropriate for comprehensive evaluation of water quality impacts, or estimating pollutant loadings. Rather the Director will use the information from the field screen in Part 1 of the application, along with other information, such as the age of development and degree of industrial activity in the drainage basin, to identify major outfalls which are appropriate for study during the second phase of the screening analysis.

The Second phase of the screening analysis requires that wet-weather and dry-weather samples be collected and analyzed in accordance with analytical methods approved under 40 CFR 136 from designated major outfalls for the following pollutants:

TABLE M-1

pH	lead
fecal coliform	copper
fecal streptococcus	chromium
volatile organic carbon (VOC)	cadmium
surfactants (MBAS)	silver
oil and grease	nickel
TSS	zinc
total organic carbon (TOC)	cyanides
biological oxygen demand (BOD_5)	total phenol
chemical oxygen demand (COD)	total chlorine

These pollutants have been selected as indicators of illegal dumping and illicit connections of process and nonprocess waste waters as well as sanitary wastewaters. Fecal coliform, fecal streptococcus and chlorine were selected as indicators of municipal sanitary wastewater discharges. Oil and grease, surfactants (MBAS), pH, TSS COD BOD_5, and TOC were selected as indicators of illicit connections from commercial and industrial operations. VOC, TOC and total phenol were selected as indicators of illicit connections from facilities that discharge wastewaters contaminated by solvents and other organic materials. The metals selected are metals for which EPA has developed effluent guidelines for industires which are generally expected to be located in an urban setting.

EPA requests comments on the use of these parameters for performing a field screen to detect discharges containing illicit connections, particularly the use of fecal coliform and fecal streptococcus (see 41*FR* 8013 (March 7, 1986)). The Agency also requests comment on the usefulness of additional parameters for use in a field screen. In addition, the Agency requests comment on alternative procedures, such as inspections of separate storm sewers that are suspected to contain illicit connections, that can be relied on in lieu of the field screen procedures proposed as Part 2 application requirements. Also, the Agency requests comments on incorporating a maximum limit on the number of major outfalls that would be subject to field screen procedures of the Part 2 application requirements and what an appropriate limit may be. Under this approach, where information in the Part 1 field screen indicated a high potential for extensive illicit connections within the system, the field sceen requirements of the Part 2 application would be limited to a specified number of major outfalls (for example, 50 major outfalls for large systems, and 25 major outfalls for medium systems). In this case, permit conditions would be developed for studying, during the term of the permit, other major outfall with a high potential for illicit connections.

b. Representative data. The NURP study showed that pollutant concentrations in urban runoff can exhibit significant variation. Pollutant concentrations in such discharges vary during storm events and from storm event to storm event. Given the complex, variable nature of storm water discharges from municipal systems, EPA favors a permit scheme where the

collection of representative data is primarily a task that will be accomplished through monitoring programs during the term of the permit. Permit writers have the necessary flexibility to develop monitoring requirements that more accurately reflect the true nature of highly variable, complex discharges.

In today's notice, EPA is proposing a strategy for performing an initial assessment of water quality impacts of discharges from municipal separate storm sewers based primarily on source identification measures and existing information received in the permit application. This information will be used to characterize system discharges. The analysis developed under this approach will incorporate existing data bases such as the one developed under the NURP study. Under today's proposal, some quantitative data will be collected to ensure the system discharges can be appropriately represented by the various existing data bases and to provide a basis for developing a monitoring plan to be implemented as a permit condition.

EPA is proposing that quantitative data be submitted for representative storm events for between five and ten outfalls. The municipality will recommend and the Director will then designate the outfalls as representative of the commercial, residential and industrial land use activities of the drainage area contributing to the system, on the basis of information received in Part 1 of the application. The applicant will be required to collect samples of a storm discharge from a representative storm event for each outfall designated. In addition, for at least one outfall designated by the Director, the applicant will be required to collect samples of storm water discharges from three representative storm events that occur at least one month apart. This requirement will be modified by the Director if the type and frequency of storm events require different sampling. For example, the Director may require samples of discharges be collected during snow melts, or during specified seasons. The Director may also require additional testing during a single event if it is unlikely that there will be three storm events suitable for sampling during the year.

All samples collected will be analyzed for all pollutants listed in Table II (organic pollutants except bis (chlormethyl) ether, dichlorofluoromethane and trichlorofluoromethane) and Table III (toxic metals, cyanide and total phenol) of Appendix D of 40 CFR Part 122, and for:

TABLE M–2

total suspended solids (TSS)	dissolved solids
COD	BOD_5
oil and grease	fecal coliform
fecal streptococcus	pH
total nitrogen	dissolved phosphorus
total ammonia plus organic nitrogen	total phosphorus

Table M–2

A portion of the NURP program involved monitoring 120 priority pollutants in storm water discharges from lands used for residential, commercial and light industrial activities. The NURP program excluded testing for asbestos and dioxin. Results for seven other organic priority pollutants were not considered valid due to changes in, or constraints on test methods. Seventy-seven priority pollutants were detected in samples of storm water discharges from lands used for residential, commercial and light industries taken during the NURP study, including 14 inorganic and 63 organic pollutants. Table M–3 shows the priority pollutants which were detected in at least ten percent of the discharge samples which were sampled for priority pollutants.

TABLE M–3.—PRIORITY POLLUTANTS DETECTED IN AT LEAST 10% OF NURP SAMPLES

	Frequency of detection (percent)
Metals and Inorganics:	
Antimony	13
Arsenic	52
Beryllium	12
Cadmium	48
Chromium	56
Copper	91
Cyanides	23
Lead	94
Nickel	42
Selenium	11
Zinc	94
Pesticides:	
Alpha-hexachlorocyclohexane	20
Alpha-endosulfan	19
Chlordane	17
Lindane	15
Halogenated Aliphatics:	
Methane, dichloro-	11
Phenols and Cresols:	
Phenol	14
Phenol, pentachloro-	19
Phenol, 4-nitro	10
Phthalate Esters:	
Phthalate, bis(2-ethylhexyl)	22

TABLE M–3.—PRIORITY POLLUTANTS DETECTED IN AT LEAST 10% OF NURP SAMPLES—Continued

	Frequency of detection (percent)
Polycyclic Aromatic Hydrocarbons:	
Chrysene	10
Fluoranthene	16
Phenanthrene	12
Pyrene	15

The NURP data also showed a significant number of these samples exceeded various freshwater water quality criteria. The exceedence of water quality criteria does not necessarily imply that an actual violation of standards will exist in the receiving water body in question. Rather, the enumeration of exceedences serves as a screening function to identify those constituents whose presence in urban storm water runoff may warrant high priority for further evaluation.

Members of this group represented all of the major organic chemical fractions found in Table II of Appendix D of Part 122 (volatiles, acid compounds, base/neutrals, pesticides). EPA favors requiring testing for all organic constituents in Table II (except bis (chlormethyl) ether, dichlorofluoromethane and trichlorofluoromethane which have been suspended from the list of organic toxic pollutants in the NPDES regulations (see 46 FR 2266, (January 8, 1981), and 46 FR 10723, (February 4, 1981)) rather than limiting the sampling requirements to the 24 toxic constituents found in the NURP study because they will provide a better description of the discharge at essentially the same cost. The NURP study focused on characterizing storm water discharges from lands used for residential, commercial and light industrial activities, and in general, did not focus on other sources of pollutants to municipal separate storm sewer systems, and therefore, does not reflect all potential pollutants that may be present in discharges from municipal separate storm sewer systems.

EPA is requesting comment on appropriate sampling requirements for discharges from large and medium municipal separate storm sewer systems and to what extent such requirements should be included in permit applications or developed as site-specific permit conditions. The option favored in today's proposal includes

sampling requirements to provide screening data for developing a more intensive program to detect illicit connections and illegal dumping. The sampling requirements proposed for the permit application address a limited number of outfalls and storm events, but require analysis of a wide range of pollutants. Sampling for a wide range of pollutants as a permit application requirement may provide permit writers with appropriate data to target more specific pollutants when developing requirements for a monitoring program established as a permit condition. In addition, the favored option requires limited sampling of representative outfalls. The favored option does not require applicants to submit quantitative data for storm water discharges associated with industrial activity as part of the permit application but instead requires applicants to submit a proposed program to monitor and control such discharges to the municipal system (see § VII.E.7.C).

EPA is working with the United States Geological Survey (USGS) to evaluate the availability of USGS technical assistance to municipalities through cooperative funding programs to aid in collecting representative quantitative data of storm water discharges from municipal systems.

USGS data collection programs with municipalities typically include storm water discharge samples obtained at various times during a storm hydrograph event. Various USGS filed procedures can be used to obtain discharge data for pipes, culverts, etc. typically found in urban areas. Pollutant models can be calibrated with data and long-term rainfall records to simulate the quality of system discharges and compared to other storm water models.

In addition, the Agency recognizes that many municipalities have participated in studies, such as NURP, that involve sampling of urban runoff as well as other components of discharges from municipal separate storm sewer systems. All existing storm water sampling data along with relevant water quality data, sediment data, fish tissue data or biosurvey data, taken over the last ten years is considered relevant and under today's proposal must be submitted with Part 1 of the application. Sampling data that is submitted must be accompanied with a narrative description of the drainage area served by the outfall monitored, a description of the sampling and quality control program, and the location of receiving water monitoring.

EPA requests comment on the use of existing data, such as that generated under the NURP study, to satisfy the requirement of providing representative sampling data. The Agency is concerned with establishing criteria that can be used to verify the validity of existing data.

c. Loading and Concentration Estimates. The assessment of the water quality impacts of discharges from municipal separate storm sewer systems on receiving waters requires the analysis of both pollutant loadings and concentrations of pollutants in discharges.

The loading and concentration estimates proposed in today's notice will be used to evaluate two types of water quality impacts: (1) Short-term impacts; and (2) long-term impacts.

Short term impacts from discharges from municipal separate storm sewers involve changes in water quality that occur during and shortly after storm events. Examples of short term impacts that can lead to impairments include periodic dissolved oxygen depression due to the oxidation of contaminants, high bacteria levels, fish kills, acute effects of toxic pollutants, contact recreation impairments and loss of submerged macrophytes. Characterization of instream pollutant concentrations based on estimated pollutant concentration in system discharges are important for evaluating these types of impacts.

Long-term water quality impacts from discharges from municipal separate storm sewers may be caused by contaminants associated with suspended solids that settle in receiving water sediments and by nutrients which enter receiving water systems with long retention times. Pollutant loading data are important for evaluation of impairments such as loss of storage capacity in streams, estuaries, reservoirs, lakes and bays, lake eutrophication caused by high nutrient loading, and destruction of benthic habitat. Other examples of the long-term water quality impacts include depressed dissolved oxygen caused by the oxidation of organics in bottom sediments and biological accumulation of toxics as a result of up-take by organisms in the food chain. An estimate of annual pollutant loading associated with discharges from municipal storm water sewer systems is necessary to evaluate the magnitude and severity of the environmental impacts of such discharges and to evaluate the effectiveness of controls which are imposed at a later time.

Municipal storm water sewer systems generally handle runoff from large drainage areas and the sources of pollution are usually very diffuse. The concentrations of many pollutants in discharges from these systems are often low relative to many industrial process and Publicly Owned Treatment Works discharges. The water quality impacts of low concentration pollution discharges tend to be cumulative and need to be evaluated in terms of aggregate loadings as well as pollutant concentrations. A site-specific loading analysis can be used to evaluate the relative contribution of various pollutant sources.

Physical impacts, such as streambed scour, streambank erosion and low stream flow during dry weather can be caused by urban runoff. Today's proposed regulations do not specifically require that the physical impacts of urban runoff be addressed in the permit application. Although NPDES permits in many jurisdictions may contain controls designed to limit these physical impacts, EPA believes that the most appropriate Federal policy is to encourage jurisdiction-specific decisions regarding the appropriateness of controls designed to lessen the physical impacts of urban runoff.

7. Proposed Storm Water Quality Management Programs

Traditionally, NPDES permits for industrial process waste discharges and for municipal sanitary sewers have relied primarily on end-of-pipe treatment technology. The basic approach for these discharges under the CWA, the application of uniform technology-based controls to classes of discharges, is often not appropriate for municipal separate storm sewer discharges. Instead, flexible site-specific and source-specific decisions on management controls are often appropriate.

A wide variety of control measures to reduce the discharge of pollutants from municipal storm sewer systems are currently available The performance of appropriate control measures is highly dependent on site-specific factors. It is therefore not practicable to define one standard set of controls which will control all pollutants in all municipalities.

In today's notice, EPA is proposing to facilitate the development of site-specific permit conditions by requiring permit applicants to submit, along with other information, a description of existing structural and non-structural control measures on discharges of pollutants from municipal storm sewers in Part 1 of the permit application. Proposed § 122.26(d)(2)(iv) requires the applicant to identify in Part 2 of the application, to the degree necessary to meet the MEP standard, additional

control measures which will be implemented during the life of the permit. Although, in many cases, it will not be possible to identify all control measures that are appropriate as permit conditions, EPA believes that the process of identifying components of a comprehensive control program should begin early and that applicants should be given the opportunity to identify and propose the components of the program that they believe are appropriate for controlling discharges of pollutants.

The permit application requirements in today's notice require the applicant or co-applicant to develop management programs for four types of pollutant sources which discharge to large and medium municipal storm sewer systems. Discharges from large and medium municipal storm sewer systems are usually expected to be composed primarily of (1) runoff from commercial and residential areas, (2) storm water runoff from industrial areas, (3) runoff from construction sites, and (4) non-storm water discharges. Part 2 of the proposed permit application has been designed to allow the applicant the opportunity to propose MEP control measures for each of these components of the discharge. Discharges from some municipal systems may also contain pollutants from other sources, such as runoff from land disposal activities (leaking septic tanks, landfills and land application of sewage sludge). Where other sources, such as land disposal, contribute significant amounts of pollutants to a municipal storm sewer system, appropriate control measures should be included on a site specific basis. Proposed management programs will then be evaluated in the development of permit conditions.

There is some overlap in the manner in which these pollutant sources are classified. Also, some control measures will reduce pollutant loads for multiple components of the municipal storm sewer discharge. These measures should be identified under all appropriate places in the application; as discussed below however, double counting of pollutant removal must be avoided when the total assessment of control measures is performed.

Although many land use programs involve multiple purposes which include measures to reduce pollutants in discharges from municipal separate storm sewer systems, the proposed management program in today's notice is intended to address only those controls which can be implemented by the permit applicant or co-applicants. The Agency cannot abrogate its responsibilities under the CWA to implement the NPDES permit program by relying on pollution control programs that are outside the NPDES program.

The Agency anticipates that storm water management programs will evolve and mature over time. The permits for discharges from municipal separate storm sewer systems will be written to reflect changing conditions that result from program development and implementation and corresponding improvements in water quality. The proposed permit applications will require applicants to provide a description of the range of control measures considered for implementation during the term of the permit. Flexibility in developing permit conditions will be encouraged by providing applicants an opportunity to identify in the permit application priority controls appropriate for the initial implementation of management programs. Applicants will propose priorities based on a consideration of appropriate controls including, but not limited to, consideration of controls that address reducing pollutants to municipal separate storm sewer system discharges that are associated with storm water from commercial and residential areas (§ 122.26(d)(2)(iv)(A)), illicit discharges and illegal disposal (§ 122.26(d)(2)(iv)(B)), storm water from industrial areas (§ 122.26(d)(2)(iv)(C)), and runoff from construction sites (§ 122.26(d)(2)(iv)(D)). Permits for different municipalities will place different emphasis on controlling various components of discharges from municipal storm sewers. For example, the potential for cross-connections (such as municipal sewage or industrial process wastewater discharges to a municipal separate storm sewer) is generally expected to be greater in municipalities with older developed areas. On the other hand, municipalities with larger areas of new development will have a greater opportunity to focus controls to reduce pollutants in storm water generated by the area after it is developed, discharges from construction sites, and other planning activities. EPA requests comments on the process and methods for developing appropriate priorities in management programs proposed in applications and how the development of these priorities can be coordinated with controls on other discharges to ensure the achievement of water quality standards and the goals of the Clean Water Act. In addition, the Agency requests comments on the costs of implementing various components of management programs.

The Agency requests comments on the appropriateness of the individual components of the proposed management programs and whether additional provisions should be added. Comments on various components of the management programs should address the cost of program development and implementation as well as the potential for pollutant removal and water quality benefits.

In addition, the Agency will continue to evaluate procedures and methods to control storm water discharges to the extent necessary to mitigate impacts on water quality in the studies required under Section 402(p)(5) of the CWA (see section IV of today's notice). One purpose of these studies will be to evaluate the costs and water quality benefits associated with implementing these procedures and methods. This evaluation will address a number of factors which impact the implementation costs associated with these programs, such as the extent to which similar municipal ordinances are currently being implemented, the degree to which existing municipal programs (such as flood management programs or construction site inspections) can be expanded to address water quality concerns, the resource intensiveness of the control, and whether the control program will involve public or private expenditures. This information, along with information gained during permit implementation will aid in the dynamic long-term development of municipal storm water management programs. EPA invites the public to submit information that can be used in the development of these studies.

a. Measures to Reduce Pollutants in Runoff from Commercial and Residential Areas. The NURP program evaluated runoff from lands primarily dedicated to residential and commercial activities. The areas evaluated in the study reflect some other activities, such as light industry, which are commonly dispersed among residential and commercial areas. The NURP study selected sampling locations that were thought to be relatively free of illicit discharges and storm water from heavy industrial sites including storm water runoff from heavy construction sites. Of course, in a study such as NURP, it was impossible to totally isolate various contributions to the runoff. In developing the proposed permit application requirements in today's notice, EPA has, in general, relied on the NURP definition of urban runoff, that is, runoff from lands used for residential, commercial and light industrial activities.

NURP and numerous other studies have shown the runoff from residential

and commercial areas washes a number of pollutants into receiving waters. Of equal importance is the volume of storm water runoff leaving urban areas during storm events. Large intermittent volumes of runoff can destroy aquatic habitat.

As the percentage of paved surfaces increases, the volume and rate of runoff and the corresponding pollutant loads also increase. Thus, the amount of storm water from commercial and residential areas and the pollutant loadings associated with storm water runoff increases as development progresses and remains at an elevated level for the lifetime of the development.

Proposed § 122.26(d)(2)(iv)(A) requires municipal storm sewer system applicants to provide in Part 2 of the application a description of a proposed management program that will describe priorities for implementing management programs based on a consideration of appropriate controls including:

- A description of maintenance activities and a maintenance schedule for structural controls;
- A description of planning procedures including a comprehensive master plan to control after construction is completed, the discharge of pollutants from municipal separate storm sewers which receive discharges from new development and significant redevelopment after construction is completed;
- A description of practices for operating and maintaining public highways and procedures for reducing the impact on receiving waters of such discharges from municipal storm sewer system;
- A description of procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies; and
- A description of a program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides and fertilizer which will include, as appropriate, controls such as educational activities and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities.

Water quality problems caused by municipal storm sewer discharges will generally be most acute in heavily developed areas. Usually, the most effective control measures are structural, and opportunities for implementing these measures may be limited in previously developed areas. Commonly used structural technologies include a wide variety of treatment techniques, including first flush diversion systems, detention/infiltration basins, retention basins, extended detention basins, infiltration trenches, porous pavement, oil/grit separators, grass swales, and swirl concentrators. A major problem associated with sound storm water management is the need for operating and maintaining the systems for their expected life.

The unavailability of land in highly developed areas often makes the use of structural controls infeasible for modifying many existing systems. Non-structural practices can play a more important role. Non-structural practices can include erosion control, streambank management techniques, street cleaning operations, vegetation/lawn maintenance controls, debris removal, road salt application management and public awareness programs.

The second component of the proposed program to reduce pollutants in storm water from commercial and residential areas which discharge to municipal storm sewer systems provides that applicants describe the planning procedures and a comprehensive master plan that will assure that increases of pollutant loading associated with newly developed areas are, to the maximum extent practicable, limited. These measures should address storm water from commercial and residential areas which discharge to the municipal storm sewer that occur after the construction phase of development is completed. Controls for construction activities are addressed later in today's notice.

As urban development occurs, the volume of storm water and its rate of discharge increases. These increases are caused when pavement and structures cover soils and destroy vegetation which otherwise would slow and absorb runoff. Development also accelerates erosion through alteration of the land surface. Areas that are in the process of development offer the greatest potential for utilizing the full range of structural and non-structural best management practices. If these measures are to provide controls to reduce pollutant discharges after the area has been developed, comprehensive planning must be used to incorporate these measures as the area is in the process of developing. These measures offer an important opportunity to limit increases in pollutant loads.

The third component of § 122.26(d)(2)(iv)(A) provides a description of practices for operating and maintaining public roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems. General guidelines recommended for managing highway storm water runoff include litter control, pesticide/herbicide use management, reducing direct discharges, reducing runoff velocity, grassed channels, curb elimination, catchbasin maintenance, appropriate streetcleaning, establishing and maintaining vegetation, development of management controls for salt storage facilities, education and calibration practices for deicing application, infiltration practices, and detention/retention practices.

The fourth component of § 122.26(d)(2)(iv)(A) provides that applicants identify procedures that enable flood management agencies to consider the impact of flood management projects on the water quality of receiving streams. A well-developed storm water management program can reduce the amount of pollutants in storm water discharges as well as benefit flood control objectives. As discussed above, increased development can increase both the quantity of runoff from commercial and residential areas and the pollutant load associated with such discharges. Disturbing the land cover, altering natural drainage patterns, and increasing impervious area all increase the quantity and rate of runoff, thereby increasing both erosion and flooding potential. Increases in the quantity of runoff can result in increasing the area of a flood plain. An integrated planning approach helps planners make the best decisions to benefit both flood control and water quality objectives.

The fifth component of § 122.26(d)(2)(iv)(A) would provide that municipal applicants submit a description of a program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides and fertilizer. Such a program may include, as appropriate, controls such as educational activities and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities. Discharges of these materials to municipal storm sewer systems can be controlled by proper application of these materials.

b. Measures for Illicit Discharges and Improper Disposal. The WQA requires that NPDES permits for discharges from municipal storm sewers "shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers." In today's proposal, EPA will begin to implement this statutory mandate by focusing on two types of discharges to large and medium

municipal separate storm sewer systems. One type of non-storm water discharges are illicit discharges which are plumbed into the system or that result from leakage of sanitary sewage system. The other class of non-storm water discharges result from the improper disposal of materials such as used oil and other toxic materials.

Illicit Discharges

In some municipalities, illicit connections of sanitary, commercial and industrial discharges to storm sewer systems have had a significant impact on the water quality of receiving waters. Although the NURP study did not emphasize identifying illicit connections to storm sewers other than to assure that monitoring sites used in the study were free from sanitary sewage contamination, the study concluded that illicit connections can result in high bacterial counts and dangers to public health. The study also noted that removing such discharges presented opportunities for dramatic improvements in the quality of urban storm water discharges.

Other studies have shown that illicit connections to storm sewers can create severe, wide-spread contamination problems. For example, the Huron River Pollution Abatement Program inspected 660 businesses, homes and other buildings located in Washtenaw County, Michigan and identified 14% of the buildings as having improper storm drain connections. Illicit discharges were detected at a higher rate of 60% for automobile related businesses, including service stations, automobile dealerships, car washes, body shops and light industrial facilities. While some of the problems discovered in this study were the result of improper plumbing or illegal connections, a majority were approved connections at the time they were built.

A wide variety of technologies exist for detecting illicit discharges. The effectiveness of these measures largely depends upon the site-specific design of the system. Under today's proposal, permit applicants would develop a description of a proposed management program, including priorities for implementing the program and a schedule to implement a program to identify illicit discharges to the municipal storm sewer system. The proposed program will identify initial priorities for analyzing various portions of the system and the appropriate detection techniques to be used.

Improper disposal

The permit application requirements proposed today for municipal storm sewer systems include a requirement that the municipal permit applicant describe a program to assist and facilitate in the proper management of used oil and toxic materials.

Improper management of used oil can lead to discharges to municipal storm sewers that in turn may have a significant impact on receiving water bodies. EPA estimates that annually, 267 million gallons of used oil, including 135 million gallons of used oil from do-it-yourself (DIY) automobile oil changes, are disposed improperly. An additional 70 million gallons of used oil, most coming from service stations and repair shops, are used for road oiling. Most of this oil contains metals, such as lead and chromium, at such high levels that the Agency proposed to list used oil as a hazardous waste (November 29, 1985, (50 *FR* 49258)). This proposal was not made final because the Agency thought that a hazardous waste listing of all used oil may discourage recycling. The Agency is presently considering listing used oil that is not recycled as a hazardous waste (March 10, 1986, (51 *FR* 8206), and November 19, 1986 (51 *FR* 41900). However, even if these rules are promulgated, due to various exclusions many individuals and facilities that generate or handle used oil are not regulated under RCRA.

Although EPA is developing a regulatory program under RCRA for the management of recycled oil, the RCRA regulations will likely only apply to certain facilities that will be classified as used oil marketers and used oil recyclers. DIY oil changers and certain other facilities are generally not subject to regulation under the RCRA program. A recent EPA report, "Revised Baseline Flow Data for Used Oil Modelling" (March 13, 1987) suggests that a large fraction of service stations no longer accept DIY used oil and that as a result DIYs are having increasing difficulty recycling oil, thereby leading to increases in uncontrolled disposal.

EPA is proposing that permit applicants for large and medium municipal storm sewer systems describe a program to facilitate the proper management of used oil. EPA requests comments on when various components of this program may be appropriate, including providing information to handlers of used oil and DIY generators and household toxic waste generators, adopting appropriate controls on road oiling, and establishing and operating oil and household waste recycling/disposal programs.

c. Measures to Reduce Pollutants in Storm Water Discharges Associated with Industrial Activities Into Municipal Systems. As discussed in § VII.B of today's notice, industrial facilities that discharge storm water to a large or medium municipal separate storm sewer system are not required to obtain an individual permit for such discharges unless the Director requires the facility to obtain a permit or to become a co-permittee. EPA is proposing to require the municipal storm sewer permittee to describe control programs for such discharges that are covered under the municipal storm sewer permit. At a minimum, the program would require the municipal applicant to identify such discharges (see source identification requirements at § 122.26(d)(1)(vi)(C)), provide for monitoring certain discharges and where necessary, implement control measures. Should a municipality suspect that an individual discharger into the system is causing a problem, and the municipality or management agency has no authority over the discharge, the municipality should contact the NPDES permitting authority and request that an individual permit be issued, or at a minimum, request that such a discharge be designated a co-permittee.

Although the Agency has not proposed specific regulatory language, EPA is requesting comment on two groups of options for programs to characterize storm water discharges associated with industrial activity that go to municipal separate storm sewers. Under the first group of options, municipal applicants would describe the development of a program to characterize discharges from certain outfalls from the municipal storm sewer system that contain runoff from industrial facilities. Under these options, the municipal applicant would submit a proposed characterization program as part of the permit application. Quantitative data collected under an approved monitoring program would be submitted during the life of the permit and would be used to develop a comprehensive control program. Under the second group of options, certain industrial facilities would be responsible for characterizing storm water discharges into large or medium municipal separate storm sewer systems.

Under the first group of options, several issues arise in the development of an appropriate characterization program for municipal systems. The first issue is identifying which storm water discharges from industrial facilities into municipal systems should be monitored. One approach would be to require data on portions of the municipal system which receives storm water from facilities which are listed in the proposed regulatory definition at § 122.26(b)(13) of "storm water discharge

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associated with industrial activity" (with the exception of construction activities and uncontaminated storm water from oil and gas operations) which discharge into the municipal system. However, given the potentially large number of facilities that meet this definition and would discharge into municipal systems, a monitoring program that requires the submission of quantitative data regarding portions of the municipal systems receiving storm water from such facilities may not be practicable. Such a requirement could, for some systems, potentially become the most resource intensive requirements in the municipal permit. Therefore, EPA is considering various ways to develop appropriate targeting for monitoring programs.

EPA requests comments on a requirement that, at a minimum, monitoring programs address discharges from municipal separate storm sewer outfalls that contain storm water discharges from municipal landfills, hazardous waste treatment, disposal and recovery facilities, and runoff from industrial facilities that are subject to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). Section 313 of Title III requires that operators or certain facilities that manufacture, import, process, or otherwise use certain toxic chemicals report annually their releases of those chemicals to any environmental media. Section 313(b) of Title III specifies that a facility is covered for purposes of reporting if it meets all of the following criteria:

- The facility has ten or more full-time employees;
- The facility is in Standard Industrial Classification (SIC) codes 20 through 39;
- The facility manufactured (including quantities imported), processed, or otherwise used a listed chemical in amounts that exceed certain threshold quantities during the calendar year for which reporting is required.

Listed chemicals include 329 toxic chemicals listed at 40 CFR 372.45. After 1989, the threshold quantities of listed chemicals that the facility must manufacture, import or process in order to be required to submit a release report is 25,000 pounds per year. The threshold for a use other than manufacturing, importing or processing of listed toxic chemicals is 10,000 pounds per year. EPA promulgated a final regulation clarifying these reporting requirements on February 16, 1988 (53 FR 4500).

EPA requests comments on whether Section 313 of SARA identifies facilities which provide an appropriate basis for establishing priorities for municipal permittees to develop monitoring and control programs for storm water associated with industrial activity. Several advantages are associated with this approach. First, the potential for toxic materials in discharges from these facilities is relatively high due to the large volume of hazardous substances located at these facilities. Second, some information regarding storm water discharges and material management at these facilities will be available through the Section 313 of SARA reporting process.

The Agency requests comments on monitoring programs for municipal discharges, including the submission of quantitative data on the following constituents:

- Any pollutant limited in an effluent guideline for the industry subcategory, where applicable;
- Any pollutant listed in the facility's NPDES permit for its process wastewater, if it has one;
- Oil and grease, COD, pH, BOD_5, TOC, TSS, total phosphorus, total nitrogen, and
- Any information on the discharge required under 40 CFR 122.21(g)(7) (iii) and (iv).

These are the same constituents that EPA is proposing to require individual permit applicants for storm water discharges associated with industrial activity to provide quantitative data.

A third issue concerning appropriate monitoring programs for runoff from industrial facilities discharging to municipal systems involves the sampling location. Several commenters on earlier storm water proposals asserted that all pollutants discharged to waters of the United States via storm water runoff may not be of concern due to the dilution factor at a specific location. The Agency initially favors establishing monitoring requirements to be applied to those outfalls that directly discharge to waters of the United States. Monitoring of outfalls close to the point of discharge to waters of the United States is generally preferable when attempting to identify priorities for developing pollutant control programs. However, under certain circumstances, it may be preferable to monitor at the point where the runoff from the industrial facility discharges to the municipal system. For example, if many facilities discharge substantially similar storm water to a municipal system (e.g., storm water discharges from general automotive repair shops) it may be more practicable to monitor discharges from representative facilities in order to characterize pollutants in the discharge.

Under the second group of options considered under today's notice, all industrial facilities which discharge storm water into a large or medium municipal storm sewer system would submit information to either the Director of the NPDES program (the EPA or States with approved NPDES programs) or the municipal permit applicant for the municipal storm sewer that receives the discharge. The information that the facility would submit to the permit applicant would be the same information that would be required in an individual permit application for a facility that discharges storm water associated with industrial activity directly to waters of the United States. For example, of facilities that discharge storm water to municipal storm sewer systems, only municipal landfills, hazardous waste treatment, storage and disposal facilities and those facilities subject to Section 313 of Title III of SARA would be required to submit a permit application. Facilities that discharge storm water to a municipal storm sewer would have the option of participating in a group application in lieu of submitting information directly to the municipal applicant. These members of the group application would be required to indicate in the group application the municipal storm sewer to which they are discharging. EPA would forward a summary of the information in the group application to the appropriate municipal applicants for use in developing appropriate controls for the member of the group application.

EPA is also requesting comment on whether facilities that discharge to large and medium municipal storm sewer systems and that are not participating in a group application should submit individual permit applications to EPA regions or NPDES States. Under this option, the permit applications would be used to determine if an individual permit or a co-permittee arrangement is appropriate. Where it is not appropriate to require an individual permit or a co-permittee arrangement, the application would be sent to the appropriate municipal permit applicant (under the authority of Section 402(j) of the CWA), who would use the information to develop appropriate controls for the facility.

This option recognizes that the operator of the facility is in the best position to know which pollutants may be in the storm water discharge and to provide the non-quantitative information that is required in individual permit applications. Further, as with facilities discharging storm water associated with industrial activity directly to waters of the United States, the facility would be responsible for

certifying that it has tested its storm water outfalls for illicit connections. By shifting this burden to the facility discharging storm water associated with industrial activity, the applicant for the municipal storm sewer would be able to concentrate effort on detecting illicit connections from other types of facilities with a high potential for illicit connections.

EPA is requesting comment on these approaches to control pollutants in storm water from industrial facilities which discharge to a large or medium municipal separate storm sewer system. In particular, should municipalities or individual industrial facilities be required to collect sampling data? If high levels of pollutants are detected in samples from a municipal storm water outfall, and storm water from industrial facilities is a suspected contributor, how will municipalities determine which facilities are responsible? Is end-of-pipe treatment generally more appropriate than source controls for storm water from industrial facilities which discharge to municipal systems? If municipalities are responsible for sampling these discharges, are indicator parameters such as VOC more appropriate than the specific constituents that individuals industrial facilities with storm water discharges which do not discharge to municipal systems are required to sample under individual storm water permit application requirements?

d. Measures to Reduce Pollutants in Runoff from Construction Sites Into Municipal Systems. Section VII.D.2 of today's notice discusses EPA's proposal to define the term "storm water discharge associated with industrial activity" to include runoff from construction facilities classified as Standard Industrial Codes 15 and 16 (general building contractors and heavy construction contractors) including preconstruction activities, *except:* (a) operations that result in the disturbance of less than 1 acre total land area which are not part of a larger common plan of development or sale; or (b) that are designed to serve single family residential projects, including duplexes, triplexes, or quadruplexes, that result in the disturbance of less than 5 acre total land areas which are not part of a larger common plan of development or sale. Under today's proposal, facilities that discharge runoff from construction sites that meet this definition will be required to submit permit applications under today's rulemaking unless they are to be covered by another NPDES permit or discharge to a municipal separate storm sewer (see § VII.C.1). Permit application requirements for such discharges are proposed at 40 CFR 122.26(c)(1)(ii).

Section 122.26(d)(2)(iv)(D) of the proposed regulations would require applicants for a permit for large or medium municipal separate storm sewer systems to submit a description of a proposed management program to control pollutants in all construction site runoff that discharges to municipal systems. Under the proposed provision, municipal applicants will submit a proposed program for implementing and maintaining structural and non-structural best management practices for controlling storm water runoff at construction sites. The program will address procedures for site planning; enforceable requirements for nonstructural and structural best management practices; procedures for inspecting sites and enforcing control measures; and educational and training measures.

Generally, construction site ordinances are effective when they are implemented. However, in many areas, even though ordinances exist, they have limited effectiveness because they are not adequately implemented. Maintaining best management practices also presents problems. Retention and infiltration basins fill up and silt fences may break or be overtopped. Weak inspection and enforcement point to the need for more emphasis on training and education to complement regulatory programs.

8. Assessment of Controls

EPA is proposing that municipal applicants provide an initial assessment of the effectiveness of the control method for structural or non-structural controls which have been proposed in the management program. Such an assessment is needed because the performance of appropriate management controls is highly dependent on site-specific factors. The assessment will be used in the development of pollutant loading and concentration estimates (see VII.E.6.C) and the evaluation of water quality benefits associated with implementing controls. Such assessments do not have to be verified with quantitative data, but can be based on accepted engineering design practices.

H. Annual reports

As discussed earlier in today's notice, EPA is proposing flexible permit application requirements to facilitate the development of site-specific programs to control the discharge of pollutants from large and medium municipal separate storm sewer systems. Many municipalities are in early stages of the complex task of developing a program suitable for controlling pollutants in discharges under a NPDES permit, while other municipalities have relatively sophisticated programs in place. In order to ensure that such site-specific programs are developed at the maximum extent practicable rate, EPA is proposing to require permittees of municipal separate storm sewer systems to submit annual status reports which reflect the development of their control programs.

The reports will be used by the permitting authority to aid in evaluating compliance with permit conditions and where necessary, modify permit conditions to address changed conditions. EPA requests comments on the appropriate content of the annual reports.

I. Application Deadlines

The WQA provided a statutory time frame for implementing the storm water permit application requirements. The Act establishes deadlines for EPA to establish permit applications, permit application submittal and permit compliance.

The WQA requires EPA to promulgate permit application requirements for storm water discharges associated with industrial activity and large municipal separate storm sewer systems by "no later than two years" after the date of enactment (i.e., no later than February 4, 1989). In conjunction with this requirement, the Act requires that permit applications for these classes of discharges be submitted within one year after the statutory date by which EPA is to promulgate permit application requirements by providing that such applications "shall be filed no later than three years" after the date of enactment of the WQA (i.e., no later than February 4, 1990).

The WOA also requires EPA to promulgate final regulations governing storm water permit application requirements for discharges from municipal separate storm sewer systems serving a population of 100,000 or more but less than 250,000 by "no later than four years" after enactment (i.e. no later than February 4, 1991). Permit applications for medium municipal separate storm sewer systems "shall be filed no later than five years" after the date of enactment of the WQA (i.e., no later than February 4, 1992). The WQA did not establish the time period between designation and permit application submittal for case-by-case designations under section 402(p)(2)(E).

Comments on earlier rulemakings involving storm water application

deadlines have indicated that applicants need adequate time to obtain "representative" storm water samples, at least one full rain year. This is because many discharges are located in areas where testing during dry seasons or winter would not be feasible. The intermittent and unpredictable nature of storm water discharges can result in difficult and time-consuming data gathering. Moreover, some operators have many storm water discharges associated within industrial activity which can require considerable time to identify, analyze, and submit applications. This creates a tremendous practical problem for the extremely high number of unpermitted storm water discharges. The Agency's and the public's interest in a sound storm water program and the development of a useful data base on these sources is best served by establishing an application deadline which will allow sufficient time to gather, analyze, and submit meaningful applications. Based on a consideration of these factors, EPA favors proposing that individual permit applications for storm water discharges associated with industrial activity which currently are not covered by a permit and that are required to obtain a permit be submitted not later than one year after the final rule is promulgated.

Operators of storm water discharges which are currently covered by a permit, will, of course, not be required to submit a permit application until their existing permit expires. Facilities which must reapply for a permit for a storm water discharge prior to the promulgation of a final rule based on today's proposal are required to submit complete Form 1 and Form 2C applications. In recognition of the time required to collect storm water discharge data, EPA will consider allowing facilities that currently have a NPDES permit for a discharge and which must reapply for permit renewal the option of applying in accordance with existing Form 1 and Form 2C requirements in lieu of applying in accordance with the revised application requirements during the first year following promulgation of the revised permit application requirements.

As discussed in § VII.E.4 and § VII.G.2 of today's notice, EPA favors a two part permit applications for both group applications for sufficiently similar facilities that discharge storm water associated with industrial activity and for operators of large or medium municipal separate storm sewer systems. The deadlines for submitting permit applications that are proposed in today's notice are based on providing adequate time for: applicants to prepare Part 1 of the application, adequate review of Part 1 of the application by EPA or, in the case of permit applications for large and medium municipal storm sewer systems, approved NPDES States, and preparation of the contents of the Part 2 application.

For permit applications for storm water discharges associated with industrial activity, EPA is proposing that Part 1 of the group application be submitted within 120 days from the publication of final permit application regulations. This time is necessary to form groups and for individual members of the group to prepare the non-quantitative information required in Part 1 of the application. Part 1 of the group application will be submitted to EPA Headquarters in Washington, DC and approved or disapproved within 60 days after being received. Part 2 of the application would then be submitted within one year after the Part 1 application is approved.

For large municipal separate storm sewer systems (systems serving a population of more than 250,000), EPA is proposing that Part 1 of the permit applications be submitted within one year of the date of the final rule. The Director will approve or disapprove the provisions of the Part 1 permit application within 90 days after receiving the Part 1 application. The Part 2 portion of the application shall then be submitted within two years of the date of the final rule.

For medium municipal separate storm sewer systems (systems serving a population of more than 100,000, but less than 250,000), EPA is proposing that permit applications will be required on November 4, 1990. The Director will approve or disapprove the provisions of the Part 1 permit application within 90 days after receiving the Part 1 application. The Part 2 portion of the application shall then be submitted no later than February 4, 1992, one year after the Part 1 application has been approved.

Operators of storm water discharges that are not normally required to obtain a permit, may be required to obtain a permit for their discharge on the basis of a case-by-case designation by the Administrator or the NPDES State. EPA is proposing that operators of storm water discharges associated with industrial activity which discharge to municipal separate storm sewers are generally not required to obtain a NPDES permit for their discharge, unless required by the Director on a case-by-case basis. The Administrator or NPDES State may also designate storm water discharges (except agricultural storm water discharges) that contribute to a violation of a water quality standard or that are significant contributors of pollutants to waters of the United States for a permit. Prior to a case-by-case determination that an individual permit is required for a storm water discharge, the Administrator or NPDES State may require the operator of the discharge to submit a permit applcation. EPA is proposing at § 124.52(c) to require the operator of designated discharges to submit a permit application within 60 days of notice, unless permission for a later date is granted. The 60-day deadline is consistent with the procedures for designating other discharges for a NPDES permit on a case-by-case basis found at § 124.52. The 60-day deadline recognizes that case-by-case designations often require an expedited response, but at the same time, is flexible to allow for case-by-case adjustments.

In recognition of the time required to promulgate rational final regulations which address the complex issues associated with storm water permit application requirements, the Agency realizes that given the date of this proposal, the agency may not be able to promulgate permit application requirements by the statutory deadline of February 4, 1989 for storm water discharges associated with industrial activities and discharges from large municipal separate storm sewer systems. Based on an analysis of the comments received on today's proposal, the Agency will consider promulgating a final rule specifying permit application requirements for storm water discharges associated with industrial activity prior to the date of promulgation of permit application requirements for large and medium municipal storm sewer systems.

EPA requests comments on the relationship between the proposed deadlines and the proposal for a two part permit application for discharges from a large or medium municipal separate storm sewer system. Specifically, EPA requests comments on an alternative approach to a two part permit application where only some of the requirements discussed in today's notice (primarily the Part 1 application requirements) would be established as application requirements and other requirements (primarily the Part 2 application requirements) would be established as permit conditions. Under this approach, applicants would be required to include plans to submit information with the Part 1 application. These plans would be used to develop compliance schedules which would be

incorporated as permit conditions. This option is not favored in today's notice because of the Agency's concerns about the additional complexities associated with the scheme and the additional time that may be required to develop and implement municipal storm water management programs.

J. State Storm Water Management Programs

Today's notice proposes permit application requirements which apply to only the following storm water discharges:

- A discharge with respect to which a permit has been issued prior to February 4, 1987;
- A discharge associated with industrial activity;
- A discharge from a municipal separate storm sewer system serving a population of 250,000 or more;
- A discharge from a municipal separate storm sewer system serving a population of 100,000 or more, but less than 250,000; or
- A discharge for which the Administrator or NPDES State determines that the storm water discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to the waters of the United States.

The EPA, or NPDES approved States cannot require NPDES permits for other discharges composed entirely of storm water prior to October 1, 1992. EPA is required to submit to Congress a report on a study, conducted in consultation with the States, for the purpose of;

- Identifying those storm water discharges or classes of storm water discharges for which permits are not required prior to October 1, 1992; and
- Determining, to the maximum extent practicable, the nature and extent of pollutants in such discharges.

Not later than October 1, 1989, EPA, in consultation with the States, is required to conduct a study for the purpose of establishing procedures and methods to control storm water discharges to the extent necessary to mitigate impacts on water quality.

These studies are to be used by EPA, in consultation with State and local officials, to issue regulations which designate additional storm water discharges to be regulated to protect water quality and to establish a comprehensive storm water quality regulatory program. Section 402(p)(6) of the CWA requires that the comprehensive regulatory program shall, at a minimum, establish priorities, establish requirements for State storm water management programs, and establish expeditious deadlines. The provision provides EPA with broad authority and discretion to fashion the comprehensive regulatory program, which may include performance standards, guidelines, guidance, and management practices and treatment requirements, as appropriate.

As stated earlier in today's notice, one goal in evaluating public comments received in response to today's notice is to gather information for these studies. To facilitate information gathering for the studies, the Agency is proposing an initial framework for State storm water management programs. This initial framework is intended to encourage States to participate in the development of the Section 402(p)(5) studies, and the subsequent development of regulations. EPA will use information collected in this manner, along with other information, such as section 305(b) reports, as guidance in developing storm water programs with the flexibility to target priorities of individual States to the extent necessary to mitigate impacts on water quality associated with storm water discharges.

VIII. Economic Impact

EPA has prepared an Information Collection Request for the purpose of estimating the information collection burden imposed on Federal, State and local governments and industry by proposed revisions to NPDES permit application requirements for storm water discharges codified in 40 CFR Part 122. The Agency is proposing these revisions in response to Section 402(p)(4) of the Clean Water Act, as amended by the Water Quality Act of 1987 (WQA). The proposed revisions would apply to: storm water discharges associated with industrial activity; discharges from municipal separate storm sewer systems serving a population of 250,000 or more and discharges from municipal separate storm sewer systems serving a population of 100,000 or more, but less than 250,000.

The annual cost for applying for NPDES permits for discharges from municipal separate storm sewer systems was estimated to be $5.7 million. EPA estimates that an average application for a permit for all discharges from a municipal separate storm sewer system serving a population of 250,000 or more would cost $131,200 to prepare, or 8,534 hours, while an average application for a permit for all discharges from a municipal separate storm sewer system serving a population of 100,000 or more, but less than 250,000 would cost $83,600 to prepare, or 5,438 hours, annually. The annual respondent cost for NPDES permit applications for storm water discharges for industrial activities was estimated to be $7.6 million or 238,644 hours. EPA estimates that an average application for a permit application for a storm water discharge associated with industrial activity (other than construction activities) would cost $1011.20, or 31.6 hours to prepare. The average cost to prepare a prepare a permit application for a storm water discharge associated with industrial activity from a construction activities would be $144.00 or 4.5 hours. The annual respondent cost for facilities which discharge storm water associated with industrial activity to a municipal separate storm sewer system serving a population of 100,000 or more to notify the operator of the municipal storm sewer is estimated to be $9.4 million. The average cost for facilities which discharge storm water associated with industrial activity to municipal separate storm sewer system serving a populaton of 100,000 or more to notify the operator of the municipal separate storm sewer system would be $195.20 or 6.1 hours. The annual cost to the Federal Government and approved states for administration of the program was estimated to be $0.46 million. In summary, the total burden for municipalities, industry, and state and federal authorities was estimated to equal $23.4 million.

In general, the cost estimates provided in the ICR focus primarily on the costs associated with developing, submitting and reviewing the permit applications associated with today's notice. The Agency will continue to evaluate procedures and methods to control storm water discharges to the extent necessary to mitigate impacts on water quality in the studies required under Section 402(p)(5) of the CWA (see section IV of today's notice). One purpose of these studies will be to evaluate the costs and water quality benefits associated with implementing these procedures and methods. This information, along with information gained during permit implementation will aid in the dynamic long-term development of storm water control efforts. EPA invites the public to submit information regarding the cost of implementing storm water controls to aid in the completion of these studies.

IX. Executive Order 12291

Executive Order 12291 requires EPA and other agencies to perform regulatory analyses of major regulations. Major rules are those which impose a cost on the economy of $100 million or more annually or have certain other economic impacts. Today's proposed amendments

would generally make the NPDES permit application regulations more flexible and less burdensome for the regulated community. These regulations would not, if promulgated satisfy any of the criteria specified in section 1(b) of the Executive Order and, as such, would not constitute a major rule. This regulation was submitted to the Office of Management and Budget (OMB) for review.

X. Paperwork Reduction Act

The information collection requirements in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* An Information Collection Request (ICR) document has been prepared by EPA (ICR No. 0226.04) and a copy may be obtained from: Florice Farmer, Information Policy Branch; EPA; 401 M St., SW. (PM–223); Washington, DC or by calling (202) 382–2740.

Public reporting burden for permit applications for storm water discharges associated with industrial activity (other than from construction facilities) is estimated to average 31.6 hours per response. The public reporting burden for permit applications for storm water discharges associated with industrial activity from a construction activities is estimated to average 4.5 hours per response. The public reporting burden for facilities which discharge storm water associated with industrial activity to municipal separate storm sewers serving a population of 100,000 to notify the operator of the municipal separate storm sewer system is estimated to average 6.1 hours per response.

The reporting burden for system-wide permit applications for discharges from municipal separate storm sewer systems serving a population of 250,000 or more is estimated to average 945.5 hours per response in the Part 1 application and 7589 hours per response in the Part 2 application. The reporting burden for system-wide permit applications for discharges from municipal separate storm sewer systems serving a population of 100,000 or more, but less than 250,000 is estimated to average 515.5 hours per response in the Part 1 application and 4923 hours per response in the Part 2 application. Estimates of reporting burden include time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Chief, Information Policy Branch, PM–223, U.S. Environmental Protection Agency, 401 M St., SW., Washington, DC 20490; and to the Office of Information and Regulatory Affairs, Office of Management and Budget; Washington, DC 20503, marked "Attention: Desk Officer for EPA.". The final rule will respond to OMB or public comments on the information collection requirements contained in this proposal.

XI. Regulatory Flexibility Act

Under the Regulatory Flexibility Act, 5 USC 601 *et seq.*, EPA is required to prepare a Regulatory Flexibility Analysis to assess the impact of rules on small entities. No Regulatory Flexibility Analysis is required, however, where the head of the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities.

Today's proposed amendments to the regulations would generally make the NPDES permit applications regulations more flexible and less burdensome for permittees. Accordingly, I hereby certify, pursuant to 5 U.S.C. 605(b), that these amendments would not, if promulgated, have a significant impact on a substantial number of small entities.

List of Subjects in 40 CFR Parts 122,123, 124 and 504

Administrative practice and procedure, Environmental protection, Reporting and recordkeeping requirements, Water pollution control.

Authority: Clean Water Act, 33 USC 1251 *et seq.*

Lee M. Thomas,

Administrator.

Date: November 23, 1988.

For the reasons stated in the preamble, Parts 122, 123, 124 and 504 of Title 40 of the Code of Federal Regulations are proposed to be amended as follows:

PART 122—EPA ADMINISTERED PERMIT PROGRAMS; THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Subpart B—Permit Application and Special NPDES Program Requirements

1. The authority citation for Part 122 continues to read as follows:

Authority: Clean Water Act, 33 U.S.C. 1251 et seq.

2. Section 122.1 is amended by revising paragraph (b)(2)(iv) to read as follows:

§ 122.1 Purpose and scope.

* * * * *

(b) * * *

(2) * * *

(iv) Discharges composed entirely of storm water as set forth in § 122.26; and

* * * * *

3. Section 122.21 is amended by revising paragraph (c), removing paragraph (f)(9), amending paragraph (g)(3) by adding the sentence shown below, revising paragraph (g)(7), removing and reserving paragraph (g)(10) and revising the introductory text of paragraph (k) to read as follows:

§ 122.21 Application for a permit (applicable to State programs, see § 123.25).

* * * * *

(c) *Time to apply.* Any person proposing a new discharge, (including new discharges containing storm water associated with industrial activity), shall submit an application at least 180 days before the date on which the discharge is to commence, unless permission for a later date has been granted by the Director. Persons proposing a new discharge are encouraged to submit their applications well in advance of the 180 day requirement to avoid delay. See also paragraph (k) of this section and paragraphs 122.26(c)(1)(i)(G) and 122.26(c)(1)(ii).

* * * * *

(f) * * *

(9) (removed)

* * * * *

(g) * * *

(3) * * * The average flow of point sources composed of storm water may be estimated and the rainfall event and the method of estimation that the estimate is based on must be indicated.

* * * * *

(7) *Effluent characteristics.* Information on the discharge of pollutants specified in this paragraph (except information on storm water discharges which is to be provided as specified in § 122.26). When "quantitative data" for a pollutant are required, the applicant must collect a sample of effluent and analyze it for the pollutant in accordance with analytical methods approved under 40 CFR Part 136. When no analytical method is approved the applicant may use any suitable method but must provide a description of the method. When an applicant has two or more outfalls with substantially identical effluents, the Director may allow the applicant to test only one outfall and report that the quantitative data also apply to the substantially identical outfalls. The requirements in paragraphs (g)(7)(iii)

and (iv) of this section that an applicant must provide quantitative data for certain pollutants known or believed to be present do not apply to pollutants present in a discharge solely as the result of their presence in intake water; however, an applicant must report such pollutants as present. Grab samples must be used for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform and fecal streptococcus. For all other pollutants, 24-hour composite samples must be used. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period greater than 24 hours. In addition, for discharges other than storm water discharges, the Director may waive composite sampling for any outfall for which the applicant demonstrates that the use of an automatic sampler is infeasible and that the minimum of four (4) grab samples will be a representative sample of the effluent being discharged. For storm water discharges, all samples shall be collected from the discharge resulting from the first storm event after a minimum period of 96 hours without a measurable (greater than 0.1 inch rainfall) storm event. For storm water discharges, a grab sample shall be taken during the first twenty minutes of the discharge, and a flow-weighted composite shall be taken for either the entire discharge or for the first three hours of the discharge. The flow-weighted composite sample for a storm water discharge may be taken with a continuous sampler or as a combination of a minimum of three sample aliquots taken in each hour of discharge for the entire discharge or for the first three hours of the discharge, with each aliquot being separated by a minimum period of fifteen minutes. However, a minimum of one grab sample may be taken for storm water discharges from holding ponds or other impoundments with a retention period greater than 24 hours. For a flow-weighted composite sample, only one analysis of the composite of aliquots is required. For storm water discharge samples quantitative data must be reported for the grab sample taken during the first twenty minutes of the discharge for all pollutants specified in § 122.26, and for flow-weighted composites, quantitative data must be reported for all pollutants specified in § 122.26 except pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform and fecal streptococcus. The Director may establish appropriate site-specific sampling requirements, including the location of the outfall to be sampled, the season the sampling takes place, the minimum duration between the previous measurable storm event and the storm event sampled and the form of percipitation sampled (snow melt or rain fall). An applicant is expected to "know or have reason to believe" that a pollutant is present in an effluent based on an evaluation of the expected use, production, or storage of the pollutant, or on any previous analyses for the pollutant. (For example, any pesticide manufactured by a facility may be expected to be present in contaminated storm water runoff from the facility.)

* * * * *

(g)(10) (removed and reserved)

* * * * *

(k) *Application requirements for new sources and new discharges.* New manufacturing, commercial, mining and silvicultural dischargers applying for NPDES permits (except for new discharges of facilities subject to the requirements of § 122.21(h) or new discharges of storm water associated with industrial activity which are subject to the requirements of § 122.26(c)(1) and this section (except as provided by § 122.26(c)(1)(ii)) shall provide the following information to the Director, using the application forms provided by the Director:

* * * * *

4. Section 122.22 is amended by revising paragraph (b) introductory text, to read as follows:

§ 122.22 Signatories to permit applications and reports (applicable to State programs, see § 123.25).

* * * * *

(b) All reports required by permits, and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

* * * * *

5. Section 122.26 is revised to read as follows:

§ 122.26 Storm water discharges (applicable to State NPDES programs, see § 123.25).

(a) *Permit requirement.* (1) Prior to October 1, 1992, discharges composed entirely of storm water shall not be required to obtain a NPDES permit except:

(i) A discharge with respect to which a permit has been issued prior to February 4, 1987;

(ii) A discharge associated with industrial activity;

(iii) A discharge from a large municipal separate storm sewer system;

(iv) A discharge from a medium municipal separate storm sewer system;

(v) A discharge which the Director, or in States with approved NPDES programs, either the Director or the EPA Regional Administrator, determines to contribute to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States. This designation may include a discharge from any conveyance or system of conveyances used for collecting and conveying storm water runoff or a system of discharges from municipal separate storm sewers, except for those discharges from conveyances which do not require a permit under paragraph (a)(2) of this section or agricultural storm water runoff which is exempted from the definition of point source at 122.2. The Director or the EPA Regional Administrator may designate discharges from municipal separate storm sewers on a system-wide or jurisdiction-wide basis. In making this determination the Director or the EPA Regional Administrator may consider the following factors:

(A) The location of the discharge with respect to waters of the United States;

(B) The size of the discharge;

(C) The quantity and nature of the pollutants discharged to waters of the United States; and

(D) Other relevant factors.

(2) The Director may not require a permit for discharges of storm water runoff from mining operations or oil and gas exploration, production, processing or treatment operations or transmission facilities, composed entirely of flows which are from conveyances or systems of conveyances (including but not limited to pipes, conduits, ditches, and channels) used for collecting and conveying precipitation, runoff and which are not contaminated by contact with or that has not come into contact with, any overburden, raw material, intermediate products, finished product, byproduct or waste products located on the site of such operations. Contaminated storm water runoff from mining operations includes runoff which contain pollutants above natural background levels. Contaminated storm water runoff from oil and gas exploration, production, processing or treatment operations or transmission facilities includes, but is not limited to, runoff which:

(i) Contains a hazardous substance in excess of reporting quantities established at 40 CFR 117.3 or 40 CFR 302.4;

(ii) Contains oil in excess of the reporting quantity established at 40 CFR 110.3; or

(iii) Contributes to a violation of a water quality standard.

(3) *Large and Medium Municipal Separate Storm Sewer Systems.*

(i) Permits must be obtained for all discharges from large and medium municipal separate storm sewer systems.

(ii) The Director may either issue one system-wide permit covering all discharges from municipal separate storm sewers within a large or medium municipal storm sewer system or issue distinct permits for appropriate categories of discharges within a large or medium municipal separate storm sewer system including, but not limited to: all discharges owned or operated by the same municipality; located within the same jurisdiction; all discharges within a system that discharge to the same watershed; discharges within a system that are similar in nature; or for individual discharges from municipal separate storm sewers within the system.

(iii) The operator of a discharge from a municipal separate storm sewer which is part of a large or medium municipal separate storm sewer system must either:

(A) Participate in a permit application (to be a permittee or a co-permittee) with one or more other operators of discharges from the large or medium municipal storm sewer system which covers all, or a portion of all, discharges from the municipal separate storm sewer system; or

(B) Submit a distinct permit application which only covers discharges from the municipal separate storm sewers for which the operator is responsible.

(iv) One permit application may be submitted for all or a portion of all municipal separate storm sewers within adjacent or interconnected large or medium municipal separate storm sewer systems. The Director may issue one system-wide permit covering all, or a portion of all municipal separate storm sewers in adjacent or interconnected large or medium municipal separate storm sewer systems.

(v) Permits for all or a portion of all discharges from large or medium municipal separate storm sewer systems that are issued on a system-wide, jurisdiction-wide, watershed or other basis may specify different conditions relating to different discharges covered by the permit, including different management programs for different drainage areas which contribute storm water to the system.

(vi) Co-permittees need only comply with permit conditions relating to discharges from the municipal separate storm sewers for which they are operators.

(vii) (A) Operators of storm water discharges associated with industrial activity which discharge to a municipal separate storm sewer system are not required to submit an individual NPDES permit application or participate in a group application for such discharge provided:

(*1*) The operator of such a storm water discharge submits, to the municipality responsible for the municipal separate storm sewer receiving the discharge by no later than [*insert 180 days from date of publication of final rule*] or prior to commencing such discharge: the name of the facility; the location of the discharge; a description (such as SIC codes) which best reflects the principal products or services provided by each facility; existing quantitative data (including flow estimates and sampling data) describing the discharge; and a certification that, if feasible, the discharge has been tested for the presence of non-storm water discharges. The certification shall include a description of the results of any test for the presence of non-storm water discharges, the method used, the date of any testing, and the on-site drainage points that were directly observed during a test, or why the test was not feasible;

(*2*) Such discharge is composed entirely of storm water;

(*3*) Such discharge is in compliance with applicable conditions of the NPDES permit issued for the discharge from the municipal separate storm sewer which receives the storm water discharge associated with industrial activity, provided the discharger has been notified of such conditions; and

(*4*) Such discharges do not contain a hazardous substance in excess of reporting quantities established at 40 CFR 117.3 or 40 CFR 302.4.

(B) Notwithstanding paragraph (a)(3)(vii) (A) of this section, for the purpose of appropriate oversight and enforcement, the Director, or in States with approved NPDES programs, either the Director or the EPA Regional Administrator, may require an individual permit for a discharge of storm water associated with industrial activity to a municipal separate storm sewer. Cases where an individual permit may be required include, but are not limited to:

(*1*) The discharge is not compliance with the provisions of paragraph (a)(3)(vii) (A) of this Section; or

(*2*) The discharge potentially contains toxic pollutants or hazardous substances in amounts that may interfere with water quality objectives.

(viii) All discharges to a municipal separate storm sewer that are not composed entirely of storm water must obtain a NPDES permit in accordance with the requirements of Part 122.

(4) *Other Municipal Separate Storm Sewers.* The Director may issue permits for municipal separate storm sewers that are designated under paragraph (a)(1)(v) of this section on a system-wide basis, jurisdiction-wide basis, watershed basis or other appropriate basis, or may issue permits for individual discharges.

(5) *Non-Municipal Separate Storm Sewers.* For storm water discharges associated with industrial activity from point sources which do not discharge to a municipal separate storm sewer, the Director, in his discretion, may issue a single NPDES permit covering all storm water discharges associated with industrial activity which discharge into the same set of conveyances which discharge from a single outfall, or multiple permits which cover all storm water discharges associated with industrial activity into such a system.

(i) All storm water discharges associated with industrial activity that discharge into a storm water discharge system that is not a municipal separate storm sewer must either be covered by an individual permit or a permit issued to the operator of the portion of the system that directly discharges to waters of the United States.

(ii) Where there is more than one operator of a single system of such conveyances, all operators of storm water discharges associated with industrial activity must be identified in the application submitted by the operator of the portion of the system that discharges directly to waters of the United States. Any such application shall include all information regarding storm water discharges associated with industrial activity that discharge into the system that would be required if the dischargers submitted separate applications. The operator of a storm water discharge so identified shall not be required to obtain an individual NPDES permit unless the Director specifies otherwise.

(iii) Any permit covering more than one operator shall identify the effluent limitations, or other permit conditions, if any, that apply to each operator.

(6) *Combined Sewer Systems.* Conveyances that discharge storm water runoff combined with municipal sewage are point sources that must

obtain NPDES permits in accordance with the procedures of § 122.21 and are not subject to the provisions of this section.

(7) Whether a discharge from a municipal separate storm sewer is or is not subject to regulation under this section shall have no bearing on whether the owner or operator of the discharge is eligible for funding under Title II, Title III or Title VI of the Clean Water Act. See 40 CFR Part 35, Subpart I, Appendix A(b)H.2.j.

(b) *Definitions.*

(1) "Co-permittee" means a permittee to a NPDES permit that is only responsible for permit conditions relating to the discharge for which it is operator.

(2) "illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of storm water, except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer.)

(3) "incorporated place" means the District of Columbia, or a city, town or village that is incorporated under the laws of the State in which it is located.

(4) "Large municipal separate storm sewer system" means all municipal separate storm sewers that are either:

(i) Owned or operated by an incorporated place with a population of 250,000 or more as determined by the most recent Bureau of Census estimates; or

(ii) Owned or operated by a municipality other than an incorporated place with a population of 250,000 or more, and that are designated by the Director as part of the large municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraph (b)(4)(i) of this Section. In making this determination the Director may consider the following factors:

(A) Physical interconnections between the municipal separate storm sewers;

(B) The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in paragraph (b)(4)(i) of this section;

(C) The quantity and nature of pollutants discharged to waters of the United States;

(D) The nature of the receiving waters; or

(E) Other relevant factors.

(5) "Major municipal separate storm sewer outfall" (or "major outfall") means a municipal separate storm sewer outfall that discharges from a pipe with a diameter of more than 36 inches or its equivalent (discharges from conveyances other than circular pipe which are associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a pipe with a diameter of 12 inches or more or from its equivalent (discharges from other than a circular pipe associated with a drainage area of 2 acres or more).

(6) "Major outfall" means a major municipal separate storm sewer outfall.

(7) "Medium municipal separate storm sewer system" means all municipal separate storm sewers that are either:

(i) Owned or operated by an incorporated place with a population of 100,000 or more but less than 250,000, as determined by the most recent Bureau of Census estimates; or

(ii) Owned or operated by a municipality other than an incorporated place with a population of 100,000 or more, and that are designated by the Director as part of the medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraph (b)(7)(i) of this section. In making this determination the Director may consider the following factors:

(A) Physical interconnections between the municipal separate storm sewers;

(B) The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in paragraph (b)(7)(i) of this section;

(C) The quantity and nature of pollutants discharged to waters of the United States;

(D) The nature of the receiving waters; or

(E) Other relevant factors.

(8) "Municipal separate storm sewer" means a conveyance or system of conveyances (including roads with drainage systems) that:

(i) Is owned or operated by a city, town, borough, country, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;

(ii) That is designed solely for collecting or conveying storm water; and

(iii) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

(9) "Outfall" means "point source" as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

(10) "Runoff coefficient"' means the fraction of total rainfall that will appear at the conveyance as runoff.

(11) "Significant materials" includes raw materials; fuels; materials such as solvents and detergents; finished materials such as metallic products; and waste products such as ashes, slag and sludge that are used or stored in quantities at an industrial plant that, if released and mixed with storm water, could result in impacts to receiving waters.

(12) "Storm water" means storm water runoff, snow melt runoff, surface runoff, street wash waters related to street cleaning or maintenance, infiltration (other than infilitration contaminated by seepage from sanitary sewers or by other discharges) and drainage.

(13) "Storm water discharge associated with industrial activity" means any "point source" as defined by 40 CFR 122.2 which is used for collecting and conveying storm water and which is located at an industrial plant or directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term includes, but is not limited to, storm water discharges from drainage areas in which are located: industrial plant yards; immediate access roads and rail lines; drainage ponds; material handling sites; refuge sites; sites used for the application or disposal or process waters; sites used for the storage and maintenance of material handling equipment; and sites that are presently or have been used in the past for residual treatment, storage or disposal. Material handling activities include: storage, loading and unloading of any raw material, intermediate product, finished product, byproduct or waste product. The term excludes areas located on plant lands separate from the

plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from lands used for the plant's Industrial activities. industrial plants (including industrial plants at Federally owned or operated facilities) include, but are not limited to, the following:

(i) Facilities subject to effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards (see 40 CFR Subchapter N);

(ii) Facilities classified as Standard Indistrial Classifications 20 through 39 (manufacturing industry);

(iii) Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations meeting the definition of a reclamation area under 40 CFR 434.11(1)) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations;

(iv) Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under Subtitle C of RCRA;

(v) Active and inactive landfills, land application sites, and open dumps and that have received any industrial wastes, including those that are subject to regulation under Subtitle D of RCRA;

(vi) Facilities involved in significant recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards;

(vii) Steam electric power generating facilities, including coal handling sites, and onsite and offsite ancillary transformer storage areas;

(viii) Transportation facilities classified as Standard Industrial Classifications 40 through 45, and 47 which have vehicle maintenance shops, material handling facilities, equipment cleaning operations or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance, loading, storage and unloading activities or equipment cleaning operations, or which are subject to another subparagraph under this paragraph are associated with industrial activity;

(ix) POTW lands used for land application treatment technologies, sludge disposal, handling or processing areas, and chemical handling and storage areas; and

(x) Facilities classified as Standard Industrial Classifications 15 and 16 (General building contractors and heavy construction contractors) including clearing, grading and excavation activities except: (A) operations that result in the disturbance of less than 1 acre total land area which are not part of a larger common plan of development or sale; or (B) that are designed to serve single family residential projects, including duplexes, triplexes, or guadruplexes, that result in the disturbance of less than 5 acre total land areas which are not part of a larger common plan of development or sale.

(c) *Application requirements for storm water discharges associated with industrial activity*— (1) *Individual application.* Any discharge that contains storm water associated with industrial activity and that an operator is required to obtain a permit for, or any discharge of storm water which the Director is evaluating for designation (see 40 CFR 124.52(c)) under paragraph (a)(1)(v) and is not a municipal separate storm sewer, and which is not part of a group application described under paragraph (c)(2) of this section, shall submit an NPDES application in accordance with the requirement of § 122.21 and shall provide the following information (Applicants for discharges composed entirely of storm water shall submit Form 1 and Form 2F. Applicants for discharges composed of storm water and non-storm water shall submit Form 1, Form 2C, and Form 2F. Applicants for new sources or new discharges (as defined in section 122.2 of this part) composed of storm water and non-storm water shall submit Form 1, Form 2D, and Form 2F):

(i) Except as provided in paragraphs 122.26(c)(1) (ii) and (iii), the operator of a storm water discharge associated with industrial activity subject to this section shall provide:

(A) A site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its drainage and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each past or present areas used for outdoor storage or disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied, each of its hazardous waste treatment, storage or disposal facilities (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility;

(B) An estimate of the area of impervious surfaces (including paved areas and building roofs) and the total area drained by each outfall and a narrative description of significant materials that are currently or in the past have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas; the location, manner and frequency in which pesticides, herbicides, soil conditioners and fertilizers are applied; the location and a description of existing structural and non-structural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the ultimate disposal of any solid or fluid wastes other than by discharge.

(C) A certification that all outfalls that should contain storm water discharges associated with industrial activity have been tested for the presence of non-storm water discharges which are not covered by a NPDES permit, tests for such non-storm water discharges may include smoke tests, fluorometric dye tests, analysis of accurate schematics, as well as other appropriate tests. The certification shall include a description of the method used, the date of any testing, and the on-site drainage points that were directly observed during a test;

(D) Existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility;

(E) Representative quantitative data based on samples collected during representative storm events and collected in accordance with section 122.21 of this Part from all outfalls containing a storm water discharge associated with industrial activity for the following parameters:

(*1*) Any pollutant limited in an effluent guideline to which the facility is subject;

(*2*) Any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit);

(*3*) Oil and grease, pH, TOC, BOD_5, COD, TSS, total phosphorus, total nitrogen;

(*4*) Any information on the discharge required under § 122.21(g)(7) (iii) and (iv) of this Part;

(*5*) Flow measurements or estimates of the flow rate, and the total amount of discharge for the storm event(s) sampled, and the method of flow measurement or estimation; and

(*6*) The date and duration of the storm event(s) sampled, rainfall measurements or estimates of the storm event which generated the sampled runoff and the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event.

(F) Operators of a discharge which is composed entirely of storm water are exempt from the requirements of § 122.21(g)(2), (g)(3), (g)(4), (g)(5), (g)(7)(i), (g)(7)(ii), and (g)(7)(v).

(G) Operators of new sources or new discharges (as defined in section 122.2 of this part) which are composed in part or entirely of storm water must include estimates for the pollutants or parameters listed in paragraph (c)(1)(i)(E) of this paragraph instead of actual sampling data, along with the source of each estimate. Operators of new sources or new discharges composed in part or entirely of storm water must provide quantitative data for the parameters listed in paragraph (c)(1)(i)(E) of this paragraph within two years after commencement of discharge, unless such data has already been reported under the monitoring requirements of the NPDES permit for the discharge. Operators of a new sources or new discharges which is composed entirely of storm water are exempt from the requirements of § 122.21(k)(3)(ii), (k)(3)(iii), and (k)(5).

(ii) The operator of an existing or new storm water discharge that is associated with industrial activity solely under paragraph (b)(13)(x) of this section, is exempt from the requirements of § 122.21(g) and § 122.26(c)(1)(i) of this Part. Such operator shall provide a narrative description of:

(A) The nature of the construction activity;

(B) The total area of the site and the area of the site that is expected to undergo excavation during the life of the permit;

(C) Proposed measures, including best management practices, to control pollutants in storm water discharges during construction, including a brief description of applicable State and local erosion and sediment control requirements; and

(D) Proposed measures to control pollutants in storm water discharges that will occur after construction operations have been completed, including a brief description of applicable State or local erosion and sediment control requirements;

(E) An estimate of the runoff coefficient of the site and the increase in impervious area after the construction addressed in the permit application is completed, the nature of fill material and existing data describing the soil or the quality of the discharge; and

(F) The name of the receiving water.

(iii) The operator of an existing or new discharge composed entirely of storm water from an oil or gas exploration, production, processing, or treatment operation, or transmission facility:

(A) Is not required to submit a permit application in accordance with paragraph (c)(1)(i) of this section, unless storm water runoff discharged from the facility:

(*1*) Contains a release of hazardous substance in excess of reporting quantities established at 40 CFR 177.3 or 40 CFR 302.4;

(*2*) Contains a release of oil in excess of the reporting quantity established at 40 CFR 110.3; or

(*3*) Contributes to a violation of a water quality standard.

(B) Notwithstanding paragraph (c)(1)(iii)(A) of this section, the Director may require on a case-by-case basis the operator of an existing or new storm water discharge from an oil or gas exploration, production, processing, or treatment operation, or transmission facility to submit a permit application in accordance with paragraph (c)(1)(i) of this section.

(iv) The Director may require additional information under § 122.21(g)(13) of this Part and may require any facility subject to paragraph (c)(1)(ii) of this section to comply with paragraph (c)(1)(i) of this section.

(2) *Group application for discharges associated with industrial activity.* In lieu of individual applications for storm water discharges associated with industrial activity, a group application may be filed by an entity representing a group of applicants that are part of the same subcategory (see 40 CFR Subchapter N) or, where such grouping is inapplicable, are sufficiently similar as to be appropriate for general permit coverage under § 122.28 of this Part. The Part 1 application (Parts 1A and 1B) shall be submitted to the Office of Water Enforcement and Permits, U.S. EPA, 401 M Street, SW., Washington, DC 20460 for approval. Once a Part 1 application is approved, group applicants are to submit Part 2 of the group application to the Office of Water Enforcement and Permits. A group application shall consist of:

(i) *Part 1A.* Part 1A of a group application shall:

(A) Identify the participants in the group application by name and location. Facilities participating in the group application shall be listed in nine subdivisions, based on the facility location relative to the nine precipitation zones indicated in Appendix E to this Part.

(B) Include a narrative description summarizing the industrial activities of participants of the group application and explaining why the participants, as a whole, are sufficiently similar to be covered by a general permit;

(C) Include a list of significant materials stored outside by participants in the group application and materials management practices employed to minimize contact by these materials with storm water runoff;

(D) Identify 10 percent of the dischargers participating in the group application with a minimum of 10 dischargers, and either a minimum of 2 dischargers from each precipitation zone indicated in Appendix E of this Part in which two or more members of the group are located, or one discharger from each precipitation zone indicated in Appendix E of this Part in which only one member of the group is located) from which quantitative data will be submitted in Part 2. If more than 1,000 facilities are identified in a group application, no more than 100 dischargers must submit quantitative data in Part 2. A description of why the facilities selected to perform sampling and analysis are representative of the group as a whole, in terms of the information provided in paragraphs (c)(2)(i)(B) and (i)(C) of this section, shall accompany this section. Different factors impacting the nature of the storm water discharges, such as processes used and material management, shall be represented, to the extent feasible, in a manner roughly equivalent to their proportion in the group.

(ii) *Part 1B.* Part 1B of the group application shall, for each participant in the group application:

(A) Provide the information described under § 122.26(c)(1)(i) (A), (B), (C) and (D) of this Part;

(B) List all constituents that are addressed in a NPDES permit issued to the facility for any non-storm water discharge; and

(C) Include a narrative description of industrial activities at the facility that are different from or that are in addition

to the activities described under paragraph (c)(2)(i)(B) of this section.

(iii) *Part 2.* Part 2 of a group application shall contain quantitative data (NPDES Form 2F) as modified by paragraph (c)(1) of this section so that when Part 1 and Part 2 of the group application are taken together, a complete NPDES application (Form 1, Form 2C and Form 2F) can be evaluated for each discharger identified in paragraph (c)(2)(i)(D) of this section.

(d) *Application requirements for large and medium municipal separate storm sewer discharges.* The operator of a discharge from a large or medium municipal separate storm sewer or a municipal separate storm sewer that is designated by the Director under paragraph (a)(1)(V) of this section, may submit a jurisdiction-wide or system-wide permit application. Where more than one public entity owns or operates a municipal separate storm sewer within a geographic area (including adjacent or interconnected municipal separate storm sewer systems), such operators may be a coapplicant to the same application. Permit applications for discharges from large and medium municipal storm sewers or municipal storm sewers designated under paragraph (a)(1)(v) of this section shall include;

(1) *Part 1.* Part 1 of the application shall consist of;

(i) *General Information.* The applicants' name, address, telephone number, ownership status and status as a Federal, State or local government entity.

(ii) *Legal Authority.* A description of existing legal authority to control discharges to the municipal separate storm sewer system. When existing legal authority is not sufficient to meet the criteria provided in paragraph (d)(2)(i) of this section, the description shall list additional authorities as will be necessary to meet the criteria and shall include a schedule and commitment to seek such additional authority that will be needed to meet the criteria.

(iii) *Source Identification.*

(A) A description of the historic use of ordinances, guidance or other controls which limited the discharge of non-storm water discharges to any Publicly Owned Treatment Works serving the same area as the municipal separate storm sewer system.

(B) A USGS 7.5 minute topographic map (or equivalent topographic map with a scale between 1:10,000 and 1:24,000 if cost-effective) extended one mile beyond the service boundaries of the municipal storm sewer system covered by the permit application. The following information shall be provided:

(*1*) The location of known municipal storm sewer system outfalls discharging to waters of the United States;

(*2*) An estimate of the outer perimeter and area of the drainage area associated with each major outfall and a description of the land use activities (e.g. divisions indicating undeveloped, residential, commercial, agricultural and industrial uses) accompanied with estimates of population densities and projected growth for a ten year period within the drainage area. For each land use division, an etimate of a runoff coefficient shall be provided;

(*3*) The name, address, location, and a description (such as SIC codes) which best reflects the principal products or services provided by each facility which may discharge to the municipal separate storm sewer storm water associated with industrial activity;

(*4*) The location and a description of the activities of the facility of each currently operating or closed municipal landfill or other treatment, storage or disposal facility for municipal waste;

(*5*) The location and the permit number of any known discharge to the municipal storm sewer that has been issued a NPDES permit;

(*6*) The location of major structural controls for storm water discharge (retention basins, detention basins, major infiltration devices, etc.); and

(*7*) The identification of publicly owned lands.

(iv) *Discharge Characterization.*

(A) Monthly mean rain and snow fall estimates and the monthly average number of storm events.

(B) Existing quantitative data describing the volume and quality of discharges from the municipal storm sewer, including a description of the outfall sampled, sampling procedures and analytical methods used.

(C) A list of water bodies that receive discharges from the municipal separate storm sewer system, including downstream segments, lakes and estuaries where pollutants from the system discharges may accumulate and cause water degradation and a brief description of known water quality impacts. At a minimum, the description of impacts shall include a description of whether the water bodies receiving such discharges have been:

(*1*) Assessed and reported in Section 305(b) reports submitted by the State, the basis for the assessment (evaluated or monitored), a summary of designated use support and attainment of Clean Water Act (CWA) goals (fishable and swimmable waters), and causes of nonsupport of designated uses;

(*2*) Listed under section 304(1)(1)(A)(i), 304(1)(1)(A)(ii), or 304(1)(1)(B) of the CWA that is not expected to meet water quality standards or water quality goals;

(*3*) Waterbodies listed in State Nonpoint Source Assessments required by Section 319(a) of the CWA that, without additional action to control nonpoint sources of pollution, cannot reasonably be expected to attain or maintain water quality standards in which storm sewers, construction, highway maintenance and runoff from municipal landfills and municipal sludge adds significant pollution (or contributes to a violation of water quality standards);

(*4*) Identified and classified according to eutrophic condition of publicly owned lakes listed in State reports required under Section 314(a) of the CWA and a description of those publicly owned lakes for which uses are known to be impaired, and a description of procedures, processes and methods relating to pollutants discharges in municipal systems to control sources of pollutants on such lakes and a description of methods and procedures to restore the quality of such lakes;

(*5*) Areas of concern of the Great Lakes that have been identified by the International Joint Commission;

(*6*) Estuaries of national significance that have been designated under the National Estuary Program under § 320 of the CWA;

(*7*) Other water bodies that the applicant recognizes as highly valued or sensitive waters; and

(*8*) Existing data showing pollutants in bottom sediments, fish tissue or biosurvey data.

(D) *Field Screening Analysis.* Results of a field screening analysis for illicit connections and illegal dumping for all major outfalls covered in the permit application. At a minimum, a screening analysis shall include a narrative description for each major outfall of a visual observation made during a dry weather period. If any flow is observed, two grab samples shall be collected during a 24 hour period with a minimum period of four hours between samples. For all such samples, a narrative description of the color, odor, turbidity, the presence of an oil sheen or surface scum as well as any other relevant observation regarding the potential presence of non-storm water discharges or illegal dumping shall be provided. In addition, a narrative description of the results of a field analysis using suitable methods to estimate pH, total chlorine, total copper, total phenol, total and hexavalant chromium, detergents (or surfactants) and free cyanide shall be

provided along with an estimate of the flow rate. Where the field analysis does not involve analytical method approved under 40 CFR Part 136, the applicant shall provide a description of the method used including the name of the manufacturer of the test method along with the range and accuracy of the test.

(E) *Characterization plan.* Information and a proposed program to meet the requirements of paragraph (d)(2)(iii) of this Section. Such description shall include:

(*1*) The identification of major outfalls that, based on information provided in the field screen analysis of paragraph (d)(1)(iv)(D) of this paragraph and other relevant information, are suspected of containing illicit discharges, for sampling under paragraph (d)(2)(iii)(A) of this section; for identified outfalls, a plan to detect and control illicit discharges and improper disposal to the storm sewer may be submitted in lieu of sampling under paragraph (d)(2)(iii)(A) of this section; and

(*2*) The location of outfalls appropriate for representative data collection under paragraph (d)(2)(iii)(B) of this section, a description of why the outfall is representative, the seasons during which sampling is intended, a description of the sampling equipment. The proposed location of outfalls for such sampling should reflect water quality concerns (see paragraph (d)(1)(iv)(C) of this section) to the extent practicable.

(v) *Management Programs.*

(A) A description of the existing management program to control pollutants from the municipal separate storm sewer system. The description shall provide information on existing structural and source controls, including operation and maintenance measures for structural controls, that are currently being implemented, accompanied with an estimate of the reduction of pollutant loads. Such controls may include, but are not limited to: procedures to control pollution resulting from construction activities, floodplain management controls, wetland protection measures, best management practices for new subdivisions and emergency spill response programs. The description may address controls established under State law as well as local controls.

(B) A description of the existing program to identify illicit connections to the municipal storm sewer system. The description should include inspection procedures and methods for detecting and preventing illicit discharges, and describe areas where this program has been implemented.

(2) *Part 2.* Part 2 of the application shall consist of:

(i) *Adequate Legal Authority.* A demonstration that the applicant shall operate pursuant to legal authority established by statute, ordinance or series of contracts which authorizes or enables the applicant at a minimum to:

(A) Control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by each storm water discharge associated with industrial activity or the quantity of storm water discharged from sites of industrial activity;

(B) Prohibit through ordinance, order or similar means, illicit discharges to the municipal separate storm sewer;

(C) Control through ordinance, order or similar means the discharge to a municipal separate storm sewer of spills, dumping or disposal of materials other than storm water;

(D) Control through interagency agreements among coapplicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system;

(E) Require compliance with conditions in ordinances, permits, contracts or orders; and

(F) Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer.

(ii) *Source Identification.* The location of any major outfall that discharges to waters of the United States that was not reported under paragraph (d)(1)(iii)(B)(*1*) of this section. For any major outfall identified under this paragraph but not identified in Part 1 of the application, the applicant shall submit appropriate information required under paragraph (d)(1)(iv)(D) of this section;

(iii) *Characterization data.* When "quantitative data" for a pollutant are required under paragraphs (d)(2)(iii)(A)(*3*), (B)(*4*) and (B)(*5*) of this section, the applicant must collect a sample of effluent in accordance with 40 CFR 122.21(g)(7) and analyze it for the pollutant in accordance with analytical methods approved under 40 CFR Part 136. When no analytical method is approved the applicant may use any suitable method but must provide a description of the method. The applicant must provide information characterizing the quality and quantity of discharges covered in the permit application, including:

(A) Dry weather and storm event sampling requirements established by the Director on the basis of the results of the screening analysis for illicit discharges and illegal dumping submitted under paragraph (d)(1)(ix) of this section. At a minimum, the Director shall require that for appropriate major outfalls:

(*1*) An estimate of the dry weather flow be provided and a 24-hour composite sample be collected during dry weather;

(*2*) Samples be collected of a storm water discharge from a representative storm event and an estimate of the flowrate during the storm event, the date and duration of the storm event(s) sampled, rainfall estimates of the storm event which generated the sampled runoff and the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event be provided; and

(*3*) For samples collected under paragraphs (d)(2)(iii)(A)(*1*) and (A)(*2*) of this section, quantitative data shall be provided for:

pH: lead
fecal coliform: copper
fecal streptococcus: chromium
volatile organic carbon (VOC): cadmium
surfactant (MBAS): silver
oil and grease: nickel
TSS: zinc
total organic carbon (TOC): cyanides
biological oxygen demand (BOD_5): total phenol
chemical oxygen demand (COD)

(B) Quantitative data from representative outfalls designate by the Director (based on information received in Part 1 of the application, the Director shall designate between five and ten outfalls as representative of the commercial, residential and industrial land use activities of the drainage area contributing to the system or, where there are less than five outfalls covered in the application, the Director shall designate all outfalls) including:

(*1*) For each outfall designated under this subparagraph, the applicant shall collect samples of a storm water discharge from a representative storm event;

(*2*) For a minimum of one outfall designated under this subparagraph, the applicant shall collect samples of storm water discharges from three representative storm events that occur at last one month apart;

(*3*) The applicant shall provide a narrative description of the date and duration of the storm event(s) sampled, rainfall estimates of the storm event which generated the sampled discharge and the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event;

(*4*) For samples collected under paragraphs (d)(2)(iii)(B)(*1*) and (B)(*2*) of this section, quantitative data shall be provided for: the organic pollutants listed in Table II (except his (chlormethyl) ether, diclorofluoromethane and trichlorofluoremethane); the pollutants listed in Table III (toxic metals, cyanide, and total phenol) of Appendix D of 40 CFR Part 122, and for the following pollutants:

total suspended solids (TSS): dissolved solids
COD: BOD_5
oil and grease: fecal coliform
fecal streptococcus: pH
total nitrogen: dissolved phosphorus
total ammonia plus organic nitrogen: total phosphorus

(*5*) Additional quantitative data required by the Director (the Director may require that quantitative data shall be provided for additional parameters, and may establish sampling conditions such as the location, season of sample collection, form of precipitation (snow melt, rainfall) and other parameters necessary to insure representativeness);

(C) Estimates of the annual pollutant load of the cumulative discharges from all outfalls (including outfalls that are not classified as major outfalls) represented in the permit application and the event mean concentration of the cumulative discharge from all outfalls (including outfalls that are not classified as major outfalls) represented in the permit application during a representative storm for BOD_5, COD, TSS, dissolved solids, total nitrogen, total ammonia plus organic nitrogen, total phosphorus, dissolved phosphorus, cadmium, copper, lead, and zinc. Estimates shall be accompanied by a description of the procedures for estimating constituent loads and concentrations, including a description of the representative storm, discharge monitoring, modelling, data analysis, and calculation methods;

(D) A proposed schedule to provide estimates for each major outfall identified in either paragraph (d)(2)(ii) or (d)(1)(iii)(B)(*1*) of this section of the seasonal pollutant load and of the event mean concentration of a representative storm for any constituent detected in any sample required under paragraph (d)(2)(iii)(B) of this section; and

(E) A proposed monitoring program for representative data collection for the term of the permit that describes the location of outfalls to be sampled (or the location of instream stations), why the location is representative, the frequency of sampling, parameters to be sampled, and a description of sampling equipment.

(iv) *Proposed management program.* A proposed program covers the duration of the permit including a comprehensive planning process which includes public participation and where necessary intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate. The program shall include a description of staff and equipment available to implement the program. Separate proposed programs may be submitted by each coapplicant. Proposed programs may impose controls on a system-wide basis, a watershed basis, a jurisdiction basis, or on individual outfalls. Proposed programs will be considered by the Director when developing permit conditions to reduce pollutants in discharges to the maximum extent practicable. Proposed management programs shall describe priorities for implementing controls. Such programs shall be based on a consideration of appropriate controls including:

(A) A description of structural and source control measures to reduce pollutants from runoff from commercial and residential areas that are discharged from the municipal storm sewer system that are to be implemented during the life of the permit, accompanied with an estimate of the expected reduction of pollutant loads and a proposed schedule for implementing such controls. At a minimum, the description shall include:

(*1*) A description of maintenance activities and a maintenance schedule for structural controls to reduce pollutants in discharges from municipal separate storm sewers;

(*2*) A description of planning procedures including a comprehensive master plan to develop, implement and enforce controls to reduce the discharge of pollutants from municipal separate storm sewers which receive discharges from areas of new development and significant redevelopment. Such plan shall address controls to reduce pollutants in discharges from municipal separate storm sewers after construction is completed. (Controls to reduce pollutants in discharges from municipal separate storm sewers containing construction site runoff are addressed in paragraph (d)(2)(iv)(D) of this section;

(*3*) A description of practices for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems;

(*4*) A description of procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies;

(*5*) A description of a program to monitor pollutants in runoff from operating or closed municipal landfills or other treatment, storage or disposal facilities for municipal waste, which shall identify priorities and procedures for inspections and establishing and implementing control measures for such discharges (this program can be coordinated with the program developed under paragraph (d)(2)(iv)(C) of this section); and

(*6*) A description of a program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides and fertilizer which will include, as appropriate, controls such as educational activities, permits, certifications and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities.

(B) A description of a program, including a schedule, to detect and remove (or require the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer. The proposed program shall include:

(*1*) A description of a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal separate storm sewer system;

(*2*) A description of sampling requirements during storm events and during non-storm events for the following constituents: fecal coliform, fecal streptococcus, VOC, surfactants (MBAS), and residual chlorine;

(*3*) A description of other testing programs based on smoke testing, and testing with fluorometric dyes;

(*4*) A description of procedures to prevent, contain, and respond to spills that may discharge into the municipal separate storm sewer;

(*5*) A description of a program to promote, publicize, and facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from municipal separate storm sewers;

(*6*) A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and

disposal of used oil and toxic materials; and

(7) A description of controls to limit infiltration of seepage from municipal sanitary sewers to municipal separate storm sewer systems where necessary.

(C) A description of a program to monitor pollutants in runoff from industrial facilities that discharge to the municipal storm sewer, which shall identify priorities and procedures for inspections and establishing and implementing control measures for such discharges.

(D) A description of a program to implement and maintain structural and non-structural best management practices to reduce pollutants in storm water runoff from construction sites to the municipal storm sewer system, which shall include:

(1) A description of procedures for site planning which incorporate consideration of potential water quality impacts;

(2) A description of requirements for nonstructural and structural best management practices;

(3) A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality; and

(4) A description of appropriate educational and training measures for construction site operators.

(v) *Assessment of Controls.* Estimated reductions in loadings of pollutants from discharges of municipal storm sewer constituents from municipal storm sewer systems expected as the result of the municipal storm water quality management program. The assessment will also identify known impacts of storm water controls on ground water.

(vi) *Fiscal Analysis.* For each fiscal year to be covered by the permit, a fiscal analysis of the necessary capital and operation and maintenance expenditures necessary to accomplish the activities of the proposed programs under paragraphs (d)(2)(iii) and (d)(2)(iv) of this section. Such analysis shall include a description of the source of funds that are proposed to meet the necessary expenditures, including legal restrictions on the use of such funds.

(vii) Where more than one legal entity submits an application, the application shall contain a description of the roles and responsibilities of each legal entity and procedures to ensure effective coordination.

(viii) Where such requirements are not practicable to are not applicable, the Director may exclude any operator of a discharge from a municipal separate storm sewer which is designated under paragraph (a)(1)(v), (b)(4)(ii) or (b)(7)(ii) of this section from the requirements of paragraphs (d)(1)(iv)(E)(2), (d)(2)(ii), (d)(2)(iii)(B) of this section and non-applicable portions of paragraph (d)(2)(iv) of this section. The Director shall not exclude from any permit application requirements under this paragraph, the operator of a discharge from a municipal separate storm sewer that is owned or operated by, or public conveyances within, an incorporated place with a population of 100,000 or more as determined by the most recent Bureau of Census estimates.

(e) *Application deadlines.* Any operator of a point source required to obtain a permit under paragraph (a)(1) of this section that does not have an effective NPDES permit covering its storm water outfalls shall submit an application in accordance with the following deadlines:

(1) For any storm water discharge associated with industrial activity that is not part of a group application as described in paragraph (c)(2), of this section, the application shall be submitted to the Director by [*insert 12 months from date of publication of final rule*];

(2) For any group application:

(i) Part 1 of the application shall be submitted to the Director, Office of Water Enforcement and Permits by [*insert 120 days from the date of publication of final rule*];

(ii) Based on information in the Part 1 application, the Director will approve or deny the members in the group application within 60 days after receiving Part 1 of the group application.

(iii) Part 2 of the application shall be submitted to the Director, Office of Water Enforcement and Permits by [*insert 18 months from the date of publication of final rule*].

(3) For any discharge from a large municipal separate storm sewer;

(i) Part 1 of the application shall be submitted to the Director by [*insert 12 months from date of publication of final rule*];

(ii) Based on information received in the Part 1 application the Director will approve or deny a sampling plan within 90 days after receiving the Part 1 application;

(iii) Part 2 of the application shall be submitted to the Director by [*insert 24 months from date of publication of final rule*].

(4) For any discharge from a medium municipal separate storm sewer;

(i) Part 1 of the application shall be submitted to the Director by November 4, 1990.

(ii) Based on information received in the Part 1 application the Director will approve or deny a sampling plan within 90 days after receiving the Part 1 application.

(iii) Part 2 of the application shall be submitted to the Director by February 4, 1992.

(5) A permit application shall be submitted to the Director within 60 days of notice, unless permission for a later date is granted by the Director (see 40 CFR 124.52(c)), for:

(i) A storm water discharge which the Director, or in States with approved NPDES programs, either the Director or the EPA Regional Administrator, determines that the discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States (see paragraph (a)(1)(v) of this section);

(ii) A discharge of storm water associated with industrial activity to a municipal separate storm sewer for which the Director, or in States with approved NPDES programs, either the Director or the EPA Regional Administrator, requires an individual permit under paragraph 122.26(a)(3)(vii)(B);

(iii) A storm water discharge from an oil or gas exploration, production, processing or treatment operation or transmission facility which is required to submit a permit application on a case-by-case basis under paragraph (c)(1)(iii)(B) of this section; or

(iv) A storm water discharge subject to paragraph (c)(1)(iv) of this section.

(f) *Petitions.* (1) Any operator of a municipal separate storm sewer system may petition the Director to require a separate NPDES permit (or a permit issued under an approved NPDES State program) for any discharge into the municipal separate storm sewer system.

(2) Any person may petition the Director to require an NPDES permit (or a permit issued under an approved NPDES State program) for a discharge which is composed entirely of storm water which contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.

(3) The owner or operator of a municipal separate storm sewer system may petition the Director to reduce the population served by such separate system to account for storm water discharged to combined sewers as defined by 40 CFR 35.2005(b)(11) that is treated in a publicly owned treatment works. In municipalities in which combined sewers are operated, the Census estimates of population may be

reduced proportional to the fraction, based by estimating lengths, of length of combined sewers over the sum of the lengths of combined sewers and municipal separate storm sewers where an applicant has submitted the NPDES permit number associated with each discharge point and a map indicating areas served by combined sewers and the location of any combined sewer overflow discharge point.

(4) The Director shall make a final determination on any petition received under this section within 90 days after receiving the petition.

6. Section 122.28(b)(2)(i)(A) is revised to read as follows:

§ 122.28 General permits (applicable to State NPDES programs, see § 123.25.

* * * * *

(b) * * *

(2) * * *

(i) * * *

(A) The discharge(s) is a significant contributor of pollution. In making this determination, the Director may consider the following factors:

(*1*) The location of the discharge with respect to waters of the United States;

(*2*) The size of the discharge;

(*3*) The quantity and nature of the pollutants discharged to waters of the United States; and

(*4*) Other relevant factors;

* * * * *

7. Section 122.42 is amended by adding paragraph (c) to read as follows:

§ 122.42 Additional conditions applicable to specified categories of NPDES permits (applicable to State NPDES programs, see § 123.25)

* * * * *

(c) *Municipal Separate Storm Sewer Systems.* The operator of a large or medium municipal separate storm sewer system or a municipal separate storm sewer that has been designated by the Director under § 122.26(a)(1)(v) of this Part must submit an annual report by the anniversary of the date of the issuance of the permit for such system. The report shall include:

(1) The status of implementing the components of the storm water management program that are established as permit conditions;

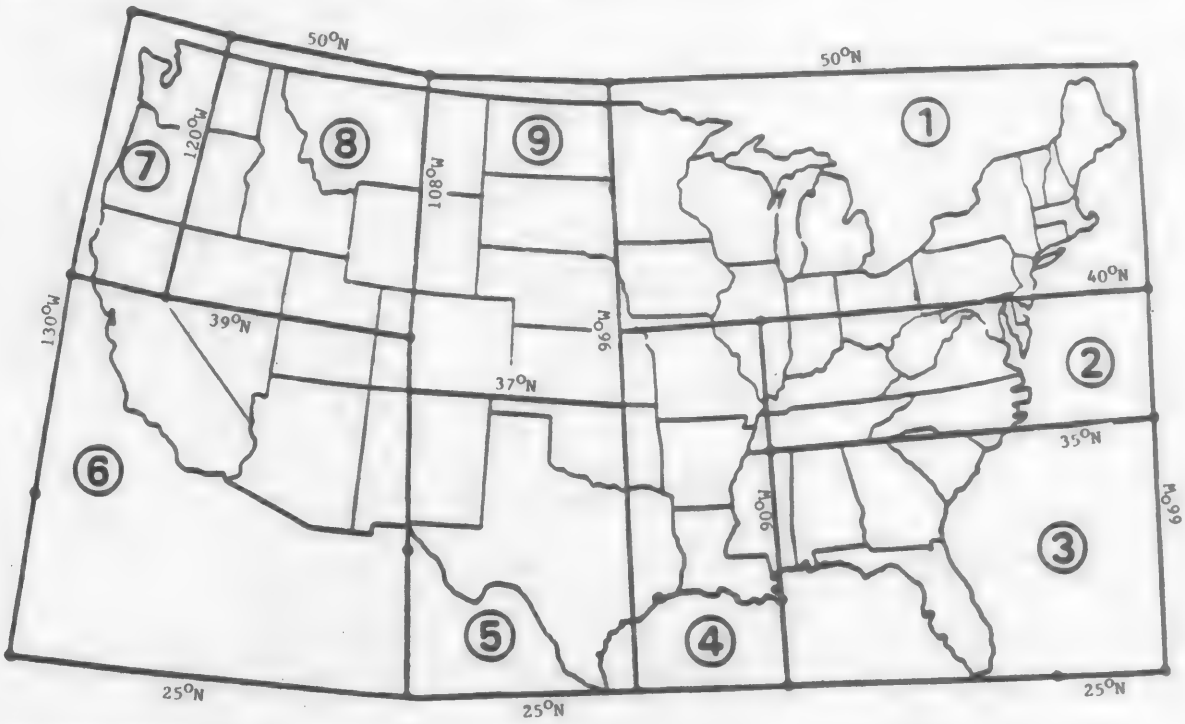
(2) Proposed changes to the storm water management programs that are established as permit condition. Such proposed changes shall be consistent with § 122.26(d)(2)(iii) of this Part; and

(3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under § 122.26(d)(2)(iv) and (d)(2)(v) of this Part.

7a. Appendix E is added to Part 122 to read as follows:

BILLING CODE 6560-50-M

Appendix E to Part 122—Rainfall Zones on the United States



BILLING CODE 6560-50-C

Not Shown: Alaska (Zone 7); Hawaii (Zone 7); Puerto Rico (Zone 7); Virgin Islands (Zone -3).

Source: Methodology for Analysis of Detention Basins for Control of Urban Runoff Quality, prepared for U.S. Environmental Protection Agency, Office of Water, Nonpoint Source Division, Washington, DC 1986.

PART 123—STATE PROGRAM REQUIREMENTS

8. The authority citation for Part 123 continues to read as follows:

Authority: Clean Water Act, 33 U.S.C. 1251 et seq.

9. Section 123.25(a)(9) is revised to read as follows:

§ 123.25 Requirements for permitting.

(a) * * *

(9) Section 122.26—(Storm water discharges);

* * * * *

PART 124—PROCEDURES FOR DECISIONMAKING

10. The authority citation for Part 124 is revised to read as follows:

Authority: Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq.; Safe Drinking Water Act, 42 U.S.C. 300f et seq.; Clean Water Act, 33 U.S.C. 1251 et seq.; and Clean Air Act, 42 U.S.C. 1857 et seq.

11. Section 124.52 is amended by revising paragraph (b) and adding paragraph (c) to read as follows:

§ 124.52 Permits required on a case-by-case basis.

* * * * *

(b) Whenever the Regional Administrator decides that an individual permit is required under this section, except as provided in paragraph (c) of this section, the Regional Administrator shall notify the discharger in writing of that decision and the reasons for it, and shall send an application form with the notice. The discharger must apply for a permit under § 122.21 within 60 days of notice. The question whether the designation was proper will remain open for consideration during the public comment period under § 124.11 or § 124.118 and in any subsequent hearing.

(c) Prior to a case-by-case determination that an individual permit is required for a storm water discharge under this section (see 40 CFR 122.26(a)(1)(v), (c)(1)(iii) and (c)(1)(iv)), the Regional Administrator may require the discharger to submit a permit application or other information regarding the discharge under section 308 of the CWA. In requiring such information, the Regional Administrator shall notify the discharger in writing and shall send an application form with the notice. The discharger must apply for a permit under § 122.26 within 60 days of notice, unless permission for a later date is granted by the Regional Administrator. The question whether the initial designation was proper will remain open for consideration during the public comment period under § 124.11 or § 124.118 and in any subsequent hearing.

12. Part 504 is added to read as follows:

PART 504—STATE STORM WATER MANAGEMENT PROGRAMS

Sec.

504.0 Program summary and purpose.

504.3 Storm water management plans.

Authority: Clean Water Act, 33 U.S.C. 1251 et seq.

§ 504.0 Program summary and purpose.

(a) This subpart establishes State storm water management programs under section 402(p) of Clean Water Act. State storm water management programs, along with the NPDES requirements for storm water discharges, are to establish comprehensive programs to regulate storm water discharges, including a framework for establishing procedures and methods to control storm water discharges.

(b) State storm water management programs are to include the development of management plans to assist continuing planning necessary to implement comprehensive programs to regulate storm water discharges to mitigate water quality impacts. Initially, State storm water management plans will provide States with a voluntary means of participating in studies of storm water discharges under Section 402(p)(5) of the CWA.

§ 504.3 Storm water management plans

EPA requests that States wishing to participate in studies of storm water discharges under Section 402(p)(5) of the CWA, prepare and submit storm water management plans which include the following plan elements or reference such plan elements contained in separate documents:

(a) Existing State programs, including appropriate Non-Point Source programs, to reduce pollutants in discharges from municipal separate storm sewers and other storm water discharges;

(b) Storm water discharges or classes of storm water discharges in addition to storm water discharges described in 40 CFR 122.26(a). At a minimum, plans should include the identification of municipal agencies which own or operate or are otherwise responsible for discharges from municipal separate storm sewers including State agencies, county agencies associated with cities, towns, villages, townships, with a population of 10,000 or more, or located in whole or in part in urban areas designated by the Bureau of Census. Such identification shall include a description of the limitations under State law of legal authorities of such municipal agencies in developing and implementing measures to reduce pollutants in discharges from municipal separate storm sewers;

(c) To the maximum extent practicable, the nature and extent of pollutants in such discharges;

(d) Procedures and methods to control storm water discharges to the extent necessary to mitigate impacts on water quality; and

(e) Priorities for developing a comprehensive program to reduce pollutants in storm water discharges. Priorities should be based on:

(1) The magnitude of water quality impacts associated with storm water discharges on various receiving waters relative to other discharges causing water quality impacts;

(2) The nature of the storm water discharges considering:

(i) The nature of impacts on receiving waters;

(ii) The size of and pollutants in the storm water discharges;

(iii) The nature of the pollution source;

(iv) Available measures to reduce pollutants in storm water discharges; and

(v) Other relevant factors.

Appendix

Note: The following Appendix will not appear in the Code of Federal Regulations.

BILLING CODE 6560-50-M

Please print or type in the unshaded areas only

EPA ID Number *(copy from Item I of Form 1)*

Form Approved. OMB No. xxxx-xxxx
Approval expires xx-xx-xx

Form 2F NPDES

EPA

United States Environmental Protection Agency
Washington, DC 20460

Application for Permit To Discharge Stormwater Discharges Associated with Industrial Activity

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 31.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., SW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. Outfall Number *(list)*	B. Latitude	C. Longitude	D. Receiving Water *(name)*

II. Improvements

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	number	source of discharge		a. req.	b. proj.

B. You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each past or present areas used for outdoor storage or disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility.

Continue on Page 2

Continued from the Front

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)

B. Provide a narrative description of significant materials that are currently or in the past have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas; and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1

V. Nonstormwater Discharges

A. I certify under penalty of law that the outfall(s) covered by this application have been tested for the presence of nonstormwater discharges, and that all nonstormwater discharges from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

Name and Official Title (type or print)	Signature	Date Signed

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility, including the approximate date and location of the spill or leak, and the type and amount of material released.

EPA ID Number *(copy from Item I of Form 1)*

Continued from Page 2

VII. Discharge Information

A,B,C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided. Tables VII-A, VII-B, and VII-C are included on separate sheets numbered VII-1 and VII-2.

E: Potential discharges not covered by analysis - is any pollutant listed in Table 2F-2 a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ Yes *(list all such pollutants below)* ☐ No *(go to Section IX)*

VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes *(list all such pollutants below)* ☐ No *(go to Section IX)*

IX. Contract Analysis Information

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ Yes *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ No *(go to Section X)*

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title *(type or print)*	B. Area Code and Phone No.
C. Signature	D. Date Signed

BEST COPY AVAILABLE

EPA ID Number *(copy from Item I of Form 1)*

Form Approved. OMB No. xxxx-xxxx
Approval expires xx-xx-xx

VII. Discharge Information *(Continued from page 3 of Form 2F)*

Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-weighted Composite		
Oil and Grease						
Biological Oxygen Demand (BOD5)						
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)						
Total Nitrogen						
Total Phosphorus						
pH	Minimum	Maximum	Minimum	Maximum		

Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-weighted Composite		

Continued from the Front

Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-weighted Composite		

Instructions—Form 2F

Application for Permit to Discharge Stormwater Associated with Industrial Activity

Who Must File Form 2F

Form 2F must be completed by operators of facilities which discharge stormwater associated with industrial activity or by operators of stormwater discharges that EPA is evaluating for designation as a significant contributor of pollutants to waters of the United States, or as contributing to a violation of a water quality standard.

Operators of discharges which are composed entirely of stormwater must complete Form 2F (EPA Form 3510–2F) in conjunction with Form 1 (EPA Form 3510–1).

Operators of discharges of stormwater which are combined with process wastewater (process wastewater is water that comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, waste product, or wastewater) must complete and submit Form 2F, Form 1, and Form 2C (EPA Form 3510–2C).

Operators of discharges of stormwater which are combined with nonprocess wastewater (nonprocess wastewater includes noncontact cooling water and sanitary wastes which are not regulated by effluent guidelines or a new source performance standard, except discharges by educational, medical, or commercial chemical laboratories) must complete Form 1, Form 2F, and Form 2E (EPA Form 3510–2E).

Operators of new sources or new discharges of stormwater associated with industrial activity which will be combined with other nonstormwater new sources or new discharges must submit Form 1, Form 2F, and Form 2D (EPA Form 3510–2D).

Where to File Applications

The application forms should be sent to the EPA Regional Office which covers the State in which the facility is located. Form 2F must be used only when applying for permits in States where the NPDES permits program is administered by EPA. For facilities located in States which are approved to administer the NPDES permits program, the State environmental agency should be contacted for proper permit application forms and instructions.

Information on whether a particular program is administered by EPA or by a State agency can be obtained from your EPA Regional Office. Form 1, Table 1 of the "General Instructions" lists the addresses of EPA Regional Offices and the States within the jurisdiction of each Office.

Completeness

Your application will not be considered complete unless you answer every question on this form and on Form 1. If an item does not apply to you, enter "NA" (for not applicable) to show that you considered the question.

Public Availability of Submitted Information

You may not claim as confidential any information required by this form or Form 1, whether the information is reported on the forms or in an attachment. Section 402(j) of the Clean Water Act requires that all permit applications will be available to the public. This information will be made available to the public upon request.

Any information you submit to EPA which goes beyond that required by this form, Form 1, or Form 2C you may claim as confidential, but claims for information which are effluent data will be denied.

If you do not assert a claim of confidentiality at the time of submitting the information, EPA may make the information public without further notice to you. Claims of confidentiality will be handled in accordance with EPA's business confidentiality regulations at 40 CFR Part 2.

Definitions

All significant terms used in these instructions and in the form are defined in the glossary found in the General Instructions which accompany Form 1.

EPA ID Number

Fill in your EPA Identification Number at the top of each odd-numbered page of Form 2F. You may copy this number directly from item I of Form 1.

Item I

You may use the map you provided for item XI of Form 1 to determine the latitute and longitude of each of your outfalls and the name of the receiving water.

Item II–A

If you check "yes" to this question, complete all parts of the chart, or attach a copy of any previous submission you have made to EPA containing the same information.

Item II–B

You are not required to submit a description of future pollution control projects if you do not wish to or if none is planned.

Item III

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including:

each of its drainage and discharge structures;

the drainage area of each stormwater outfall;

paved areas and building within the drainage area of each stormwater outfall, each past or present areas used for outdoor storage or disposal of significant materials, each existing structural control measure to reduce pollutants in stormwater runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied;

each of its hazardous waste treatment, storage or disposal facilities (including each area not required to have a RCRA permit which is used for accumulating hazardous waste for less than 90 days under 40 CFR 262.34);

each well where fluids from the facility are injected underground; and

springs, and other surface water bodies which receive stormwater discharges from the facility;

Item IV–A

For each outfall, provide an estimate of the area drained by the outfall which is covered by impervious surfaces. For the purpose of this application, impervious surfaces are surfaces where stormwater runs off at rates that are significantly higher than background rates (e.g., predevelopment levels) and include paved areas, building roofs, parking lots, and roadways. Include an estimate of the total area (including all impervious and pervious areas) drained by each outfall. The site map required under item III can be used to estimate the total area drained by each outfall.

Item IV–B

Provide a narrative description of significant materials that are currently or in the past have been treated, stored, or disposed in a manner to allow exposure to stormwater; method of treatment, storage or disposal of these materials; past and present materials management practices employed to minimize contact by these materials with stormwater runoff; materials loading and access areas; and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

Significant materials should be identified by chemical name, form (e.g., powder, liquid, etc.), and type of container or treatment unit. Indicate any materials treated, stored, or disposed of together.

Item IV–C

For each outfall, structural controls include structures which enclose material handling or storage areas, covering materials, berms, dikes, or diversion ditches around manufacturing, production, storage or treatment units, retention ponds, etc. Nonstructural controls include practices such as spill prevention plans, employee training, visual inspections, preventive maintenance, and housekeeping measures that are used to prevent or minimize the potential for releases of pollutants.

Item V

Provide a certification that all outfalls that should contain stormwater discharges associated with industrial activity have been tested for the presence of nonstormwater discharges which are not covered by an NPDES permit. Tests for such nonstormwater discharges may include smoke tests, fluorometric dye tests, analysis of accurate schematics, as well as other appropriate tests. Part B must include a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test. All nonstormwater discharges must be identified in a Form 2C or Form 2E which must accompany this application (see beginning of instructions under section titled "Who Must File Form 2F" for a description of when Form 2C and Form 2E must be submitted).

Item VI

Provide a description of existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility. Significant spills at a facility include releases of oil or hazardous substances in excess of reportable quantities under section 311 of the Clean Water Act (see 40 CFR 110.10 and 40 CFR 117.21) or section 102 of CERCLA (see 40 CFR 302.4).

Items VII–A, B, and C

These items require you to collect and report data on the pollutants discharged for each of your outfalls. Each part of this item addresses a different set of pollutants and must be completed in accordance with the specific instructions for that part. The following general instructions apply to the entire item.

General Instructions

Part A requires you to report at least one analysis for each pollutant listed. Parts B and C require you to report analytical data in two ways. For some pollutants addressed in Parts B and C, if you know or have reason to know that the pollutant is present in your discharge, you may be required to list the pollutant and test (sample and analyze) and report the levels of the pollutants in your discharge. For all other pollutants addressed in Parts B and C, you must list the pollutant if you know or have reason to know that the pollutant is present in the discharge, and either report quantitative data for the pollutant or briefly describe the reasons the pollutant is expected to be discharged. (See specific instructions on the form and below for Parts A through C.) Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, material management practices, maintenance chemicals, history of spills and releases, intermediate and final products and byproducts, and any previous analyses known to you of your effluent or similar effluent.

A. Sampling: The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater or stormwater discharges. You may contact EPA or your State permitting authority for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, the collection of duplicate samples, etc. The time when you sample should be representative, to the extent feasible, of your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present permit, or at any site adequate for the collection of a representative sample.

For pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, and fecal coliform, grab samples taken during the first 20 minutes of the discharge must be used (you are not required to analyze a flow-weighted composite for these parameters). For all other pollutants both a grab sample collected during the first 20 minutes of the discharge and a flow-weighted composite sample must be analyzed. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period of greater than 24 hours.

All samples shall be collected from a discharge resulting from the first storm event after a minimum period of 96 hours without a measurable (greater than 0.1 inch rainfall) storm event.

A grab sample shall be taken during the first twenty minutes of the discharge, and a flow-weighted composite shall be taken for the entire event or for the first three hours of the event.

Grab and composite samples are defined as follows:

Grab sample: An individual sample of at least 100 milliliters collected during the first twenty minutes of the discharge. This sample is to be analyzed separately from the composite sample.

Flow-Weighted Composite sample: A flow-weighted composite sample may be taken with a continuous sampler that proportions the amount of sample collected with the flow rate or as a combination of a minimum of three sample aliquots taken in each hour of discharge for the entire event or for the first three hours of the event, with each aliquot being at least 100 milliliters and collected with a minimum period of fifteen minutes between aliquot collections. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically. For GC/MS Volatile Organic Analysis (VOA), aliquots must be combined in the laboratory immediately before analysis. Only one analysis for the composite sample is required.

The Agency is currently reviewing sampling requirements in light of recent research on testing methods. Upon completion of its review, the Agency plans to propose changes to the sampling requirements.

Data from samples taken in the past may be used, provided that;

All data requirements are met;

Sampling was done no more than three years before submission; and

All data are representative of the present discharge.

Among the factors which would cause the data to be unrepresentative are significant changes in production level, changes in raw materials, processes, or final products, and changes in stormwater treatment. When the Agency

promulgates new analytical methods in 40 CFR Part 136, EPA will provide information as to when you should use the new methods to generate data on your discharges. Of course, the Director may request additional information, including current quantitative data, if they determine it to be necessary to assess your discharges.

B. Reporting: All levels must be reported as concentration and as total mass. You may report some or all of the required data by attaching separate sheets of paper instead of filling out pages VII–1 and VII–2 if the separate sheets contain all the required information in a format which is consistent with pages VII–1 and VII–2 in spacing and in identification of pollutants and columns. Use the following abbreviations in the columns headed "Units."

Concentration	Mass
ppm=parts per million	lbs=pounds.
mg/l=milligrams per liter	ton=tons (English tons).
ppb=parts per billion	mg=milligrams.
µg/l=micrograms per liter.	g=grams.
kg=kilograms	T=tonnes (metric tons).

All reporting of values for metals must be in terms of "total recoverable metal," unless:

(1) An applicable, promulgated effluent limitation or standard specifies the limitation for the metal in dissolved, valent, or total form; or

(2) All approved analytical methods for the metal inherently measure only its dissolved form (e.g., hexavalent chromium); or

(3) The permitting authority has determined that in establishing case-by-case limitations it is necessary to express the limitations on the metal in dissolved, valent, or total form to carry out the provisions of the CWA. If you measure only one grab sample and one flow-weighted composite sample for a given outfall, complete only the "Maximum Values" columns and insert "1" into the "Number of Storm Events Sampled" column. The permitting authority may require you to conduct additional analyses to further characterize your discharges.

If you measure more than one value for a grab sample or a flow-weighted composite sample for a given outfall and those values are representative of your discharge, you must report them. You must describe your method of testing and data analysis. You also must determine the average of all values within the last year and report the concentration mass under the "Average Values" columns, and the total number of storm events sampled under the "Number of Storm Events Sampled" columns.

C. Analysis: You must use test methods promulgated in 40 CFR Part 136; however, if none has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge provided that you submit a description of the method or a reference to a published method. Your description should include the sample holding time, preservation techniques, and the quality control measures which you used. If you have two or more substantially identical outfalls, you may request permission from your permitting authority to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted by the permitting authority, on a separate sheet attached to the application form, identify which outfall you did test, and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.

Part VII–A

Part VII–A must be completed by all applicants for all outfalls who must complete Form 2F.

Analyze a grab sample collected during the first twenty minutes of the discharge and flow-weighted composite samples for all pollutants in this Part, and report the results except use only grab samples for pH and oil and grease. See discussion in General Instructions to Item VII for definitions of grab sample collected during the first twenty minutes of discharge and flow-weighted composite sample. The "Average Values" column is not compulsory but should be filled out if data are available.

Part VII–B

List all pollutants that are limited in an effluent guideline which the facility is subject to (see 40 CFR Subchapter N to determine which pollutants are limited in effluent guidelines) or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See discussion in General Instructions to item VII for definitions of grab sample collected during the first twenty minutes of discharge and flow-weighted composite sample. The "Average Values" column is not compulsory but should be filled out if data are available.

Analyze a grab sample collected during the first twenty minutes of the discharge and flow-weighted composite samples for all pollutants in this Part, and report the results, except as provided in the General Instructions.

Part VII–C

Part VII–C must be completed by all applicants for all outfalls which discharge stormwater associated with industrial activity, or that EPA is evaluating for designation as a significant contributor of pollutants to waters of the United States, or as contributing to a violation of a water quality standard. Use both a grab sample and a composite sample for all pollutants you analyze for in this part except use grab samples for residual chlorine and fecal coliform. The "Average Values" column is not compulsory but should be filled out if data are available. Part C requires you to address the pollutants in Table 2F–2, 2F–3, and 2F–4 for each outfall. Pollutants in each of these Tables are addressed differently.

Table 2F–2: For each outfall, list all pollutants in Table 2F–2 that you know or have reason to believe are discharged (except pollutants previously listed in Part VII–B). If a pollutant is limited in an effluent guideline limitation which the facility is subject to (e.g., use of TSS as an indicator to control the discharge of iron and aluminum), the pollutant should be listed in Part VII–B. If a pollutant in Table 2F–2 is indirectly limited by an effluent guideline limitation through an indicator, you must analyze for it and report data in Part VII–C. For other pollutants listed in Table 2F–2 (those not limited directly or indirectly by an effluent limitation guideline), that you know or have reason to believe are discharges, you must either report quantitative data or briefly describe the reasons the pollutant is expected to be discharged.

Table 2F–3: For each outfall, list all pollutants in Table 2F–3 that you know or have reason to believe are discharged. For every pollutant in Table 2F–3 expected to be discharged in concentrations of 10 ppb or greater, you must submit quantitative data. For acrolein, acrylonitrile, 2,4 dinitrophenol, and 2-methyl-4, 6 dinitrophenol, you must submit quantitative data if any of these four pollutants is expected to be discharged in concentrations of 100 ppb or greater. For every pollutant expected to be discharged in concentrations less than 10 ppb (or 100 ppb for the four pollutants listed above), then you must either submit quantitative data or briefly describe the reasons the pollutant is expected to be discharged.

Small Business Exemption—If you are a "small business," you are exempt from

the reporting requirements for the organic toxic pollutants listed in Table 2F–3. There are two ways in which you can qualify as a "small business". If your facility is a coal mine, and if your probable total annual production is less than 100,000 tons per year, you may submit past production data or estimated future production (such as a schedule of estimated total production under 30 CFR 795.14(c)) instead of conducting analyses for the organic toxic pollutants. If your facility is not a coal mine, and if your gross total annual sales for the most recent three years average less than $100,000 per year (in second quarter 1980 dollars), you may submit sales data for those years instead of conducting analyses for the organic toxic pollutants. The production or sales data must be for the facility which is the source of the discharge. The data should not be limited to production or sales for the process or processes which contribute to the discharge, unless those are the only processes at your facility. For sales data, in situations involving intracorporate transfer of goods and services, the transfer price per unit should approximate market prices for those goods and services as closely as possible. Sales figures for years after 1980 should be indexed to the second quarter of 1980 by using the gross national product price deflator (second quarter of 1980=100). This index is available in National Income and Product Accounts of the United States (Department of Commerce, Bureau of Economic Analysis).

Table 2F–4: For each outfall, list any pollutant in Table 2F–4 that you know or believe to be present in the discharge and explain why you believe it to be present. No analysis is required, but if you have analytical data, you must report them. *NOte:* Under 40 CFR 117.12(a)(2), certain discharges of hazardous substances (listed at 40 CFR 177.21 or 40 CFR 302.4) may be exempted from the requirements of section 311 of CWA, which establishes reporting requirements, civil penalties, and liability for cleanup costs for spills of oil and hazardous substances. A discharge of a particular substance may be exempted if the origin, source, and amount of the discharged substances are identified in the NPDES permit application or in the permit, if the permit contains a requirement for treatment of the discharge, and if the treatment is in place. To apply for an exclusion of the discharge of any hazardous substance from the requirements of section 311, attach additional sheets of paper to your form, setting forth the following information:

1. The substance and the amount of each substance which may be discharged.
2. The origin and source of the discharge of the substance.
3. The treatment which is to be provided for the discharge by:

a. An onsite treatment system separate from any treatment system treating your normal discharge;

b. A treatment system designed to treat your normal discharge and which is additionally capable of treating the amount of the substance identified under paragraph 1 above; or

c. Any combination of the above.

See 40 CFR 117.12 (a)(2) and (c), published on August 29, 1979, in 44 FR 50766, or contact your Regional Office (Table 1 on Form 1, Instructions), for further information on exclusions from section 311.

Part VII–D

If sampling is conducted during more than one storm event, you only need to report the information requested in Part VII–D for the storm event(s) which resulted in any maximum pollutant concentration reported in Part VII–A, VII–B, or VII–C.

Provide flow measurements or estimates of the flow rate, and the total amount of discharge for the storm event(s) sampled, the method of flow measurement, or estimation. Provide the data and duration of the storm event(s) sampled, rainfall measurements, or estimates of the storm event which generated the sampled runoff and the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event.

Part VII–E

List any toxic pollutant listed in Table 2F–2, 2F–3, or 2F–4 which you currently use or manufacture as an intermediate or final product or byproduct. In addition, if you know or have reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) is discharged or if you use or manufacture 2,4,5-trichlorophenoxy acetic acid (2,4,5,-T); 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5,-TP); 2-(2,4,5-trichlorophenoxy) ethyl, 2,2-dichloropropionate (Erbon); O,O-dimethyl O-(2,4,5-trichlorphenyl) phosphorothioate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophene (HCP); then list TCDD. The Director may waive or modify the requirement if you demonstrate that it would be unduly burdensome to identify each toxic pollutant and the Director has adequate information to issue your permit. You may not claim this information as confidential; however, you do not have to distinguish between use or production of the pollutants or list the amounts.

Item VIII

Self explanatory. The permitting authority may ask you to provide additional details after your application is received.

Item X

The Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(c)(4) of the Clean Water Act provides that "Any person who knowingly makes any false material statement, representation, or certification in any application, . . . shall upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for not more than 2 years, or by both. If a conviction of such person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or by both." 40 CFR Part 122.22 requires the certification to be signed as follows:

(A) For a corporation: by a responsible corporate official. For purposes of this section, a responsible corporate official means (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25,000,000 (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Note: EPA does not require specific assignments or delegation of authority to responsible corporate officers identified in 122.22(a)(1)(i). The Agency will presume that these responsible corporate officers have the requisite authority sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate position under 122.22(a)(1)(ii) rather than to specific individuals.

(B) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(C) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

TABLE 2F-1.—CODES FOR TREATMENT UNITS

Physical Treatment Processes

1-A—Ammonia Stripping
1-B—Dialysis
1-C—Diatomaceous Earth Filtration
1-D—Distillation
1-E—Electrodialysis
1-F—Evaporation
1-G—Flocculation
1-H—Flotation
1-I—Foam Fractionation
1-J—Freezing
1-K—Gas-Phase Separation
1-L—Grinding (Comminutors)
1-M—Grit Removal
1-N—Microstraining
1-O—Mixing
1-P—Moving Bed Filters
1-Q—Multimedia Filtration
1-R—Rapid Sand Filtration
1-S—Reverse Osmosis (Hyperfiltration)
1-T—Screening
1-U—Sedimentation (Setting)
1-V—Slow Sand Filtration
1-W—Solvent Extraction
1-X—Sorption

Chemical Treatment Processes

2-A—Carbon Adsorption
2-B—Chemical Oxidation
2-C—Chemical Precipitation
2-D—Coagulation
2-E—Dechlorination
2-F—Disinfection (Chlorine)
2-G—Disinfection (Ozone)
2-H—Disinfection (Other)
2-I—Electrochemical Treatment
2-J—Ion Exchange
2-K—Neutralization
2-L—Reduction

Biological Treatment Processes

3-A—Activated Sludge
3-B—Aerated Lagoons
3-C—Anaerobic Treatment
3-D—Nitrification-Denitrification
3-E—Pre-Aeration
3-F—Spray Irrigation/Land Application
3-G—Stabilization Ponds
3-H—Trickling Filtration

Other Processes

4-A—Discharge to Surface Water
4-B—Ocean Discharge Through Outfall
4-C—Reuse/Recycle of Treated Effluent
4-D—Underground Injection

Sludge Treatment and Disposal Processes

5-A—Aerobic Digestion
5-B—Anaerobic Digestion
5-C—Belt Filtration
5-D—Centrifugation
5-E—Chemical Conditioning

TABLE 2F-1.—CODES FOR TREATMENT UNITS—Continued

5-F—Chlorine Treatment
5-G—Composting
5-H—Drying Beds
5-I—Elutriation
5-J—Flotation Thickening
5-K—Freezing
5-L—Gravity Thickening
5-M—Heat Drying
5-N—Heat Treatment
5-O—Incineration
5-P—Land Application
5-Q—Landfill
5-R—Pressure Filtration
5-S—Pyrolysis
5-T—Sludge Lagoons
5-U—Vacuum Filtration
5-V—Vibration
5-W—Wet Oxidation

TABLE 2F-2.—CONVENTIONAL AND NON-CONVENTIONAL POLLUTANTS REQUIRED TO BE TESTED BY EXISTING DISCHARGER IF EXPECTED TO BE PRESENT

Bromide
Chlorine, Total Residual
Color
Fecal Coliform
Fluoride
Nitrate-Nitrite
Nitrogen, Total Organic
Oil and Grease
Phosphorus, Total Radioactivity
Sulfate
Sulfide
Sulfite
Surfactants
Aluminum, Total
Barium, Total
Boron, Total
Cobalt, Total
Iron, Total
Magnesium, Total
Molybdenum, Total
Magnesium, Total
Tin, Total
Titanium, Total

TABLE 2F-3—TOXIC POLLUTANTS REQUIRED TO BE IDENTIFIED BY APPLICANT IF EXPECTED TO BE PRESENT

Toxic Pollutants and Total Phenol

Antimony, Total
Arsenic, Total
Beryllium, Total
Cadmium, Total
Chromium, Total
Copper, Total
Lead, Total
Mercury, Total
Nickel, Total
Selenium, Total
Silver, Total
Thallium, Total
Zinc, Total
Cyanide, Total
Phenols, Total

GC/MS Fraction Volatiles Compounds

Acrolein
Acrylonitrile
Benzene
Bis (Chloromethyl) Ether
Bromoform
Carbon Tetrachloride

TABLE 2F-3—TOXIC POLLUTANTS REQUIRED TO BE IDENTIFIED BY APPLICANT IF EXPECTED TO BE PRESENT—Continued

Chlorobenzene
Chlorodibromomethane
Chloroethane
2-Chloroethylvinyl Ether
Chloroform
Dichlorobromomethane
Dichlorodifluoromethane
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethylene
1,2-Dichloropropane
1,3-Dichloropropylene
Ethylbenzene
Methyl Bromide
Methyl Chloride
Methylene Chloride
1,1,2,2-Tetrachloroethane
Tetrachloroethylene
Toluene
1,2-Trans-Dichloroethylene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethylene
Trichlorofluoromethane
Vinyl Chloride

Acid Compounds

2-Chlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
4,6-Dinitro-O-Cresol
2,4-Dinitrophenol
2-Nitrophenol
4-Nitrophenol
p-Chloro-M-Cresol
Pentachlorophenol
Phenol
2,4,6-Trichlorophenol

Base/Neutral

Acenaphthene
Acenaphthylene
Anthracene
Benzidine
Benzo(a)anthracene
Benzo(a)pyrene
3,4-Benzofluoranthene
Benzo(ghi)perylene
Benzo(k)fluoranthene
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl)ether
Bis(2-chloroisopropyl)ether
Bis(2-ethylyhexyl)phthalate
4-Bromophenyl Phenyl Ether
Butylbenzyl Phthalate
2-Chloronaphthalene
4-Chlorophenyl Phenyl Ether
Chrysene
Dibenzo(a,h)anthracene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
3,3'-Dichlorobenzidine
Diethyl Phthalate
Dimethyl Phthalate
Di-N-Butyl Phthalate
2,4-Dinitrotoluene
2,6-Dinitrotoluene
Di-N-Octylphthalate
1,2-Diphenylhydrazine (as Azobenzene)
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachlorobutadiene
Hexachloroethane
Indeno(1,2,3-cd)pyrene
Isophorone
Naphthalene
Nitrobenzene

TABLE 2F-3—TOXIC POLLUTANTS REQUIRED TO BE IDENTIFIED BY APPLICANT IF EXPECTED TO BE PRESENT—Continued

N-Nitrosodimethylamine
N-Nitrosodi-N-Propylamine
N-Nitrosodiphenylamine
Phenanthrene
Pyrene
1,2,4-Trichlorobenzene

Pesticides

Aldrin
Alpha-BHC
Beta-BHC
Gamma-BHC
Delta-BHC
Chlordane
4,4'-DDT
4,4'-DDE
4,4'-DDD
Dieldrin
Alpha-Endosulfan
Beta-Endosulfan
Endosulfan Sulfate
Endrin
Endrin Aldehyde
Heptachlor
Heptachlor Epoxide
PCB-1242
PCB-1254
PCB-1221
PCB-1232
PCB-1248
PCB-1260
PCB-1016
Toxaphene

Ioxic Pollutant

Asbestos

TABLE 2F-4—HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANT IF EXPECTED TO BE PRESENT

Hazardous Substances

Acetaldehyde
Allyl alcohol
Allyl chloride
Amyl acetate
Aniline
Benzonitrile
Benzyl chloride
Butyl acetate
Butylamine
Carbaryl
Carbofuran
Carbon disulfide
Chlorpyrifos
Coumaphos
Cresol
Crotonaldehyde
Cylcohexane
2,4-D (2,4-Dichlorophenoxyacetic acid)
Diazinon
Dicamba
Dichlobenil
Dichlone
2,2-Dichloropropionic acid
Dichlorvos
Diethyl amine
Dimethyl amine
Dinitrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethion
Ethylene diamine
Ethylene dibromide
Formaldehyde
Furfural
Guthion
Isoprene
Isopropanolamine
Kelthane

TABLE 2F-4—HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANT IF EXPECTED TO BE PRESENT—Continued

Kepone
Malathion
Mercaptodimethur
Methoxychlor
Methyl mercaptan
Methyl methacrylate
Methyl parathion
Mevinphos
Mexacarbate
Monoethyl amine
Monomethyl amine
Naled
Naphthenic acid
Nitrotoluene
Parathion
Phenolsulfonate
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Stronthium
Strychnine
Styrene
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)
TDE (Tetrachlorodiphenyl ethane)
2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]
Trichlorofan
Triethylamine
Trimethylamine
Uranium
Vanadium
Vinyl acetate
Xylene
Xylenol
Zirconium

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